Vol. I

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1941

No. 332

THE WILLIAMS MANUFACTURING COMPANY,
PETITIONER,

vs.

UNITED SHOE MACHINERY CORPORATION

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SIXTH CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 1, 1941.

CERTIORARI GRANTED OCTOBER 20, 1941.

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The District Court of the United States

Southern District of Ohio, Western Division.

In Equity No. 1016.

UNITED SHOE MACHINERY CORPORATION,
Plaintiff,

v.

THE WILLIAMS MANUFACTURING COMPANY,
Defendant.

BILL OF COMPLAINT

(Filed April 19, 1937.)

Plaintiff for its bill of complaint says that it is informed and believes, and therefore avers, as stated in paragraphs 1 to 10 hereof, inclusive, as follows:

(1) Plaintiff, United Shoe Machinery Corporation, is a corporation duly organized and existing under the laws of the State of New Jersey, and an inhabitant of the State of New Jersey, having a principal place of business at Boston, Massachusetts. Defendant, The Williams Manufacturing Company, is a corporation duly organized and existing under the laws of the State of Ohio, and an inhabitant of the State of Ohio, and the Southern District of Ohio, Western Division, having its principal place of business in Portsmouth, Ohio, where it has committed the acts of infringement hereinafter set forth.

(2) This is a suit arising under the Patent Laws of the United States.

(3) Ronald F. McFeely, a citizen of the United States, then residing at Beverly, Massachusetts, being prior to August 16, 1916, the original and first inventor of certain new and useful improvements in lasting machines, lawfully filed on said day an application for United States patent therefor, and all his rights in said invention and application, and any patent which might issue thereon, having been assigned by mesne assignments in writing, duly recorded in the United States Patent Office, to the plaintiff, United Shoe Machinery Corporation, and the Statutes and Rules of the Patent Office having been fully complied with in all respects, United States Patent No. 1,558,737, was lawfully granted and issued to the plaintiff, pursuant to said applica-

tion, on October 27, 1925; and the plaintiff ever since has been, and now is, the sole owner of said patent; and plaintiff here makes profert of said patent and prays that same may be taken as part of this bill. Said invention of said McFeely was new, useful, and not known or used by others in this country before his invention thereof; not patented or described in any printed publication in this or any foreign country before his invention thereof, or more than two years prior to his said application for patent therefor; not in public use or on sale in this country for more than two years prior to said application; not patented in any foreign country by him or his legal representatives on an application filed more than twelve months prior to said application for United States patent; and not abandoned.

(4) Charles H. Hoyt, a citizen of the United States, then residing at Beverly, Massachusetts, being prior to January 28, 1920, the original and first inventor of certain new and useful improvements in fastening-inserting machines, lawfully filed on said day an application for United States Patent therefor, and having assigned by an assignment in writing, duly recorded in the United States Patent Office, all his rights in said invention and application, and any patent which might issue thereon, to the plaintiff, United Shoe Machinery Corporation, and the Statutes and Rules of the Patent Office having been fully complied with in all respects, United States patent No. 1,508,394, was lawfully granted and issued to the plaintiff, pursuant to said application, on September 16, 1924; and plaintiff ever since has been, and now is, the sole owner of said patent; and plaintiff here makes profert of said patent and prays that same may be taken as part of this bill. Said invention of said Hoyt was new, useful, and not known or used by others in this country before his invention thereof; not patented or described in any printed publication in this or any foreign country before his invention thereof, or more than two years prior to his said application for patent therefor; not in public use or on sale in this country for more than two years prior to said application; not patented in any foreign country by him or his legal representatives on an application filed more than twelve months prior to said application for United States patent; and not abandoned.

(5) Charles F. Pym, a subject of the King of England, then residing at Detroit, Michigan, being prior to December 13, 1915, the original and first inventor of certain new and useful improvements in lasting

machines, lawfully filed on said day an application for United States patent therefor, and all his rights in said invention and application, and any patent which might issue thereon, having been assigned by mesne assignments in writing, duly recorded in the United States Patent Office, to the plaintiff, United Shoe Machinery Corporation, and the Statutes and Rules of the Patent Office having been fully complied with in all respects, United States Patent No. 1,368,968, was lawfully granted and issued to the plaintiff, pursuant to said application, on February 15, 1921; and the plaintiff ever since has been, and now is, the sole owner of said patent; and plaintiff here makes profert of said patent and prays that the same may be taken as part of this bill. Said invention of said Pym was new, useful, and not known or used by others in this country before his invention thereof; not patented or described in any printed publication in this or any foreign country before his invention thereof, or more than two years prior to his said application for patent therefor; not in public use or on sale in this country for more than two years prior to said application; not patented in any foreign country by him or his legal representatives on an application filed more than twelve months prior to said application for United States patent; and not abandoned.

(6) The inventions patented by said patents are of great utility and of great value to the plaintiff, and have been put into extensive use.

(7) Since January 1, 1934, and prior to the filing of this bill of complaint, the defendant, The Williams Manufacturing Company, within said Southern District of Ohio, Western Division, has infringed plaintiff's exclusive rights under said McFeely patent No. 1,558,737, said Hoyt patent No. 1,508,394, and said Pym patent No. 1,368,968, by using, unlawfully and without license, lasting machines embodying the inventions patented in said McFeely patent, said Hoyt patent, and said Pym patent.

(8) Plaintiff has heretofore notified the defendant of its infringement of each of said patents, and defendant has continued its infringement after such notice.

(9) Defendant's infringing machines herein complained of were manufactured in Germany by Maschinenfabrik Moenus A. G., Frankfort A. M., Germany, by which concern they were supplied to defendant. Said concern also sent other such machines into the United States, but when notified of the infringement of plaintiff's said patents by such machines, said concern agreed to,

and did, withdraw all such other infringing machines from the United States. Said concern likewise offered to take back the defendant's said infringing machines, and requested defendant to return these machines to Germany, because of the infringement of plaintiff's patents by said machines, but defendant refused to return the machines, and persists in the use thereof.

(10) Although well aware of the plaintiff's rights under the said patents, defendant has carried on and is continuing its infringement in violation of plaintiff's rights as secured by said patents, whereby plaintiff has been and is being greatly and irreparably damaged, and whereby defendant has obtained and is obtaining profits which in equity belong to plaintiff, the amount of which damages and profits plaintiff cannot ascertain except by an accounting.

WHEREFORE PLAINTIFF PRAYS:

(a) For a perpetual injunction restraining the defendant, its clerks, agents, servants and workmen, from directly or indirectly infringing said patents or any of them, and for a preliminary injunction to the like effect pending this suit.

(b) That plaintiff recover the profits, savings and advantages realized by the defendant, and the damages suffered by the plaintiff by reason of said infringement, and for an accounting of such profits and damages, and that any damages found be trebled because of the wilful persistence of the defendant in said infringement, and for plaintiff's costs.

(c) For such other and further relief as equity may require.

UNITED SHOE MACHINERY CORPORATION
By Sidney W. Winslow, Jr.,
Its President.

Bennett R. Knight,
Solicitor for Plaintiff.

Fish, Richardson & Neave,
Harrison F. Lyman,
Charles E. Hammett, Jr.,
84 State Street, Boston, Mass.,
Of Counsel for Plaintiff.

(Duly verified)

MOTION OF DEFENDANT TO STRIKE PARAGRAPH (9) OF BILL OF COMPLAINT

(Filed May 6, 1937.)

Now comes the defendant in the above entitled cause, by its attorneys of record, and moves the Court for an order striking out paragraph numbered (9) of the bill of complaint appearing on pages 4 and 5 thereof.

The ground of this motion is, that said specified parts of the bill of complaint are impertinent or scandalous, violative of Rule 25 and inserted with the evident intent or purpose alone of prejudicing the rights of the defendant before the Court.

Toulmin & Toulmin,
Attorneys for The Williams Manufacturing Company.

H. A. Toulmin
H. A. Toulmin, Jr.
Solicitors and of Counsel.

The Court is of opinion the foregoing Motion is well taken and that it should be and it is sustained.

7/12/37. Nevin, J.

MEMORANDUM

Equity Rule 21 reads as follows:

> "The right to except to bills, answers, and other proceedings for scandal or impertinence shall not obtain, but the court may, upon motion or its own initiative, order any redundant, impertinent or scandalous matter stricken out, upon such terms as the court shall think fit."

The instant action is an ordinary one in Equity for alleged infringement of Letters Patent. The paragraph of the bill complained of sets up that the accused apparatus was manufactured by a German concern and that, when the plintiff notified this concern of its claim of infringement, this German manufacturer offered to take back the machine. The German manufacturer is not a party to the action, and the inclusion of this paragraph in the bill of complaint amounts to pleading augmentative expression, opinions, and evidentiary matter.

Rule 25 expressly provides that a bill shall contain merely "a short and simple statement of the ultimate facts upon which the plaintiffs asks relief, omitting any mere statement of evidence." In these days of voluminous litigation, it behooves counsel as well as litigants to relieve the courts from the burden of lengthy and

rhetorical recitals in a pleading by strictly complying with this Rule.

In Western Union Tel. Co. v. Louisville & N. R. Co., 250 F. 199, 201 (C.C.A.5), the bill was made up of statements of law, augmentative expressions, and legal conclusions, of which the court said "much, if not all, could properly be stricken out as redundant or impertinent matter" under Rule 21.

Under similar circumstances, we here invoke this rule to purge the pleadings from matter that can have no pertinency under a bill charging patent infringement and evidently only appear thereon in an endeavor to prejudice the rights of defendant before the Court.

It is, therefore, submitted that the motion of the defendant should prevail and the matter contained in paragraph (9) of the bill of complaint should be ordered stricken out.

Respectfully submitted,
Toulmin & Toulmin,
Attorneys for The Williams Manufacturing Company.

H. A. Toulmin
H. A. Toulmin, Jr.
Solicitors and of Counsel.

ORDER

(Filed July 21, 1937.)

This cause coming on regularly to be heard upon the motion of the defendant to strike paragraph numbered (9) from the bill of complaint, and the same having been submitted in open court, counsel for both parties being present, argument had and briefs filed and the Court being fully advised in the premises, and it appearing to the Court that the motion of the defendant is well taken:

Order.

IT IS ORDERED, ADJUDGED AND DECREED as follows:

(1) That the motion of the defendant to strike paragraph numbered (9) of the bill of complaint be and the same hereby is sustained and allowed;

(2) That the plaintiff be and hereby is granted leave to file an amended bill of complaint within the period of ten (10) days from the date of the entry of this order, eliminating the matters and things set forth and alleged in said pragraph (9) of the original bill of complaint, in accordance with this order.

(3) That the time within which the defendant may file its answer or otherwise plead be and the same hereby is extended pending the filing by the plaintiff of its amended bill of complaint as directed herein.

Dated 20th day of July, 1937.

Nevin,
U. S. Judge.

Approved as to Form:

Bennett R. Knight,
Attorney for Plaintiff.

Toulmin & Toulmin,
Attorneys for Defendant.

AMENDED BILL OF COMPLAINT

(Filed July 14, 1937.)

Plaintiff for its bill of complaint says that it is informed and believes, and therefore avers, as stated in paragraphs 1 to 10 hereof, inclusive, as follows:

(1) Plaintiff, United Shoe Machinery Corporation, is a corporation duly organized and existing under the

laws of the State of New Jersey, and an inhabitant of the State of New Jersey, having a principal place of business at Boston, Massachusetts. Defendant, The Williams Manufacturing Company, is a corporation duly organized and existing under the laws of the State of Ohio, and an inhabitant of the State of Ohio, and the Southern District of Ohio, Western Division, having its principal place of business in Portsmouth, Ohio, where it has committed the acts of infringement hereinafter set forth.

(2) This is a suit arising under the Patent Laws of the United States.

(3) Ronald F. McFeely, a citizen of the United States, then residing at Beverly, Massachusetts, being prior to August 16, 1916, the original and first inventor of certain new and useful improvements in lasting machines, lawfully filed on said day an application for United States patent therefor, and all his rights in said invention and application, and any patent which might issue thereon, having been assigned by mesne assignments in writing, duly recorded in the United States Patent Office, to the plaintiff, United Shoe Machinery Corporation, and the Statutes and Rules of the Patent Office having been fully complied with in all respects, United States Patent No. 1,558,737, was lawfully granted and issued to the plaintiff, pursuant to said application, on October 27, 1925; and the plaintiff ever since has been, and now is, the sole owner of said patent; and plaintiff here makes profert of said patent and prays that same may be taken as part of this bill. Said invention of said McFeely was new, useful, and not known or used by others in this country before his invention thereof; not patented or described in any printed publication in this or any foreign country before his invention thereof, or more than two years prior to his said application for patent therefor; not in public use or on sale in this country for more than two years prior to said application; not patented in any foreign country by him or his legal representatives on an application filed more than twelve months prior to said application for United States patent; and not abandoned.

(4) Charles H. Hoyt, a citizen of the United States, then residing at Beverly, Massachusetts, being prior to January 28, 1920, the original and first inventor of certain new and useful improvements in fastening-inserting machines, lawfully filed on said day an application for United States Patent therefor, and having assigned by an assignment in writing, duly recorded in the United

States Patent Office, all his rights in said invention and application, and any patent which might issue thereon, to the plaintiff, United Shoe Machinery Corporation, and the Statutes and Rules of the Patent Office having been fully complied with in all respects, United States patent No. 1,508,394, was lawfully granted and issued to the plaintiff, pursuant to said application, on September 16, 1924; and plaintiff ever since has been, and now is, the sole owner of said patent; and plaintiff here makes profert of said patent and prays that same may be taken as part of this bill. Said invention of said Hoyt was new, useful, and not known or used by others in this country before his invention thereof; not patented or described in any printed publication in this or any foreign country before his invention thereof, or more than two years prior to his said application for patent therefor; not in public use or on sale in this country for more than two years prior to said application; not patented in any foreign country by him or his legal representatives on an application filed more than twelve months prior to said application for United States patent; and not abandoned.

(5) Charles F. Pym, a subject of the King of England, then residing at Detroit, Michigan, being prior to December 13, 1915, the original and first inventor of certain new and useful improvements in lasting machines, lawfully filed on said day an application for United States patent therefor, and all his rights in said invention and application, and any patent which might issue thereon, having been assigned by mesne assignments in writing, duly recorded in the United States Patent Office, to the plaintiff, United Shoe Machinery Corporation, and the Statutes and Rules of the Patent Office having been fully complied with in all respects, United States Patent No. 1,368,968, was lawfully granted and issued to the plaintiff, pursuant to said application, on February 15, 1921; and the plaintiff ever since has been, and now is, the sole owner of said patent; and plaintiff here makes profert of said patent and prays that the same may be taken as part of this bill. Said invention of said Pym was new, useful, and not known or used by others in this country before his invention thereof; not patented or described in any printed publication in this or any foreign country before his invention thereof, or more than two years prior to his said application for patent therefor; not in public use or on sale in this country for more than two years prior to said application; not patented in any

foreign country by him or his legal representatives on an application filed more than twelve months prior to said application for United States patent; and not abandoned.

(6) The inventions patented by said patents are of great utility and of great value to the plaintiff, and have been put into extensive use.

(7) Since January 1, 1934, and prior to the filing of this bill of complaint, the defendant, The Williams Manufacturing Company, within said Southern District of Ohio, Western Division, has infringed plaintiff's exclusive rights under said McFeely patent No. 1,558,737, said Hoyt patent No. 1,508,394, and said Pym patent No. 1,368,968, by using, unlawfully and without license, lasting machines embodying the inventions patented in said McFeely patent, said Hoyt patent, and said Pym patent.

(8) Plaintiff has heretofore notified the defendant of its infringement of each of said patents, and defendant has continued its infringement after such notice.

(9) The public has acquiesced in the validity of said Letters Patent to McFeely No. 1,558,737, to Hoyt No. 1,508,394 and to Pym No. 1,368,968.

(10) Although well aware of the plaintiff's rights under said patents, defendant has carried on and is continuing its infringement in violation of plaintiff's rights as secured by said patents, whereby plaintiff has been and is being greatly and irreparably damaged, and whereby defendant has obtained and is obtaining profits which in equity belong to plaintiff, the amount of which damages and profits plaintiff cannot ascertain except by an accounting.

WHEREFORE PLAINTIFF PRAYS:

(a) For a perpetual injunction restraining the defendant, its clerks, agents, servants and workmen, from directly or indirectly infringing said patents or any of them, and for a preliminary injunction to the like effect pending this suit.

(b) That plaintiff recover the profits, savings and advantages realized by the defendant, and the damages suffered by the plaintiff by reason of said infringement, and for an accounting of such profits and damages, and that any damages found be trebled because of the wilful persistence of the defendant in said infringement, and for plaintiff's costs.

(c) For such other and further relief as equity may require.

UNITED SHOE MACHINERY CORPORATION
By Sidney W. Winslow, Jr.,
Its President.

Bennett R. Knight,
Solicitor for Plaintiff.

Harrison F. Lyman,
Charles E. Hammett, Jr.,
84 State Street, Boston, Mass.,
Of Counsel for Plaintiff.

(Duly verified)

MOTION OF DEFENDANT FOR FURTHER PARTICULARS

(Filed July 24, 1937.)

Now comes the defendant by its attorneys of record, and, under the provisions of Equity Rule 20, moves the Court for an order directing the plaintiff to furnish and file further and better particulars of the matters stated in the bill of complaint as follows:

As to each of the three patents in suit:

(1) Specify which claim or claims are alleged to be infringed.

(2) The chronological order of the alleged dates of invention of each of the patents in suit, including the dates of conception, first drawings, and reduction to practice, that will be relied upon by the plaintiff.

(3) A statement setting forth precisely wherein there are found in the alleged infringing machine the features

claimed by the plaintiff as new and patentable, as to each claim of the patents in suit.

The defendant shows to the Court that it is unable to fully and specifically answer the bill of complaint herein, until or unless it is advised in the matters called for by such further satement of particulars, and further moves that the time for filing its answer herein be extended to a period of twenty (20) days after the filing of said statement by the plaintiff.

Toulmin & Toulmin,
Attorneys for Defendant.

H. A. Toulmin
H. A. Toulmin, Jr.
Solicitors and of Counsel.

Sustained by consent in open court.

Sustained by date to be filed ———.

DECISION ON MOTION FOR FURTHER PARTICULARS

(Filed October 22, 1937.)

NEVIN, District Judge:

This cause is now before the court on a motion filed by the defendant on July 24, 1937, wherein it asks the court for an order directing the plaintiff to furnish and file further particulars in the respects set forth in the motion. The motion contains three separate paragraphs with respect to the particulars desired by defendant.

The motion was presented to the court orally. At that time the motion as to paragraphs 1 and 2 was sustained. As to paragraph 1, the motion was sustained with the consent of counsel representing both parties. As to paragraph 2, the motion was sustained after it was agreed that the dates of the respective parties should be filed simultaneously.

Decision on Motion for Further Particulars.

This leaves then for the consideration of the court only so much of the motion as is found in paragraph 3 thereof.

Upon consideration of the pleadings, the arguments and briefs of counsel, the court is of the opinion that the motion, insofar as paragraph 3 thereof is concerned, is not well taken and that it should be and it is overruled.

An order may be drawn accordingly.

Nevin, J.

APPEARANCES:

For Plaintiff: Bennett R. Knight, Cincinnati, Ohio; Fish, Richardson & Neave, Boston, Mass.

For Defendant: Toulmin & Toulmin, Dayton, Ohio.

ORDER ON DEFENDANT'S MOTION FOR FURTHER PARTICULARS

(Filed November 11, 1937.)

This cause having come on to be heard upon defendant's motion for particulars, filed July 24, 1937, and the matter having been argued and briefs submitted on behalf of both parties, now, upon consideration thereof, it is ORDERED as follows:

1. As to Paragraph 1, defendant's motion is sustained. The defendant shall have thirty (30) days within which to answer after the specification of claims by the plaintiff is filed.

2. As to Paragraph 2, defendant's motion is sustained. It is ordered that the plaintiff file its statement of dates of invention, under seal, with the Clerk of this Court, within fifteen (15) days from the date of entry of this order. It is further ordered that the defendant file, with its answer, a statement setting forth, as to each instance of prior knowledge, invention or use set up in defendant's answer or to be relied upon by defendant at the trial, the same information which is requested by

Order on Defendant's Motion for Further Particulars.

Paragraph 2 of defendant's present motion concerning the patents in suit, said statement of defendant to be also under seal. The Clerk of this Court is then authorized to open simultaneously both of said statements under seal and to file them with the papers in this cause.

3. Paragraph 3 of defendant's motion is hereby overruled, to which the defendant excepts, which exception is granted.

Nevin,
United States District Judge.

Approved as to form:

C. E. Hammett, Jr.,
Of Counsel for Plaintiff.

H. A. Toulmin, Jr.,
Of Counsel for Defendant.

PLAINTIFF'S STATEMENT OF PARTICULARS

(Filed November 20, 1937.)

Now comes the plaintiff and, pursuant to Paragraph 1 of an order entered November 11, 1937 on Defendant's Motion for Particulars, specifies the claims alleged to be infringed, as follows:

Pym Patent No. 1,368,968—Claim 168.

Hoyt Patent No. 1,508,394—Claims 19, 20, 21 and 22.

McFeely Patent No. 1,558,737—Claims 6, 21-28 inclusive, 38-42 inclusive, 47-55 inclusive, 68-75 inclusive, 84, 85, 91, 92, 93 and 110.

Fish, Richardson & Neave,
Of Counsel for Plaintiff.

PLAINTIFF'S STATEMENT OF DATES OF INVENTION

(Filed November 22, 1937.)

Now comes the plaintiff and, pursuant to Paragraph 2 of an order entered November 11, 1937 on Defendant's Motion for Particulars, answers Item 2 of said motion as follows:

The chronological order of dates of invention of the patents in suit is:

PYM PATENT NO. 1,368,968

Conception, drawings and reduction to practice early in the year 1914.

McFEELY PATENT NO. 1,558,737

Claims 6, 84 and 85—Conception, drawings and reduction to practice in July, 1914.

Claims 21-28 inclusive, 91 and 92—Conception, drawings and reduction to practice in June, 1914.

Claims 38-42 inclusive, 47-55 inclusive, 68-75 inclusive, 93 and 110—Conception, drawings and reduction to practice in August, 1915.

HOYT PATENT NO. 1,508,394

Conception, drawings and reduction to practice in January, 1917.

Fish, Richardson & Neave,
Of Counsel for Plaintiff.

(Envelope opened 12/16/37.)

STATEMENT OF DATES OF PRIOR USES TO BE RELIED UPON BY DEFENDANT

(Filed December 16, 1937.)

The dates relied upon are the filing dates of the following patents, which are identified with each prior use by the letter of the paragraph referring to the prior use in paragraph 13 of the answer:

Statement of Dates of Prior Uses to Be Relied Upon by Defendant.

(a)	935,065		1,135,945
	946,708		1,135,958
	974,202		1,171,383
	1,002,818		1,188,616
	Re. 13,292		1,188,617
	1,023,854		1,197,437
	1,030,519		1,197,439
	1,030,562		1,284,870
	1,030,847		Re. 14,576
	1,033,946		1,368,968
	Re. 13,505	(b)	601,933
	Re. 13,507		601,935
	1,066,375	(c)	1,245,117
	1,068,843	(d)	524,445
	Re. 13,718		524,446
	1,104,016	(e)	402,959
	1,124,958	(f)	1,168,011
	1,129,881	(g)	672,624
	1,129,882	(h)	588,569
	1,130,142	(i)	569,231
	1,132,630	(j)	596,323
	1,132,978	(k)	957,949

Respectfully submitted,

Toulmin & Toulmin,
Counsel for Defendant.

(Removed copy from envelope 12/20/37
B. R. Knight)

ANSWER and COUNTERCLAIM
(Filed December 16, 1937.)

TO THE HONORABLE JUDGES OF THE DISTRICT COURT OF THE UNITED STATES, IN AND FOR THE SOUTHERN DISTRICT OF OHIO, WESTERN DIVISION:

Answer and Counterclaim.

The Williams Manufacturing Company, defendant, makes the following answer to the bill of complaint herein:

I. Defendant admits the corporate capacity and residence of the respective parties as averred in paragraph (1), but denies the remainder of paragraph (1).

2. Defendant admits the averment in paragraph (2) of the bill of complaint.

3. The defendant admits, on information and belief, that an application was filed by Ronald F. McFeely for Letters Patent and that such Letters Patent was issued as patent No. 1,558,737, but it is not advised as to the remainder of the averments of the paragraph, and therefore leaves the plaintiff to its proof thereof.

4. The defendant admits, on information and belief, that an application was filed by Charles H. Hoyt for Letters Patent and that such Letters Patent was issued as patent No. 1,508,394, but it is not advised as to the remainder of the averments of the paragraph, and therefore leaves the plaintiff to its proof thereof.

5. The defendant admits, on information and belief, that an application was filed by Charles F. Pym for Letters Patent and that such Letters Patent was issued as patent No. 1,368,968, but it is not advised as to the remainder of the averments of the paragraph, and therefore leaves the plaintiff to its proof thereof.

6. The defendant denies the allegations of paragraph (6) of the bill of complaint.

7. The defendant denies the allegations of paragraph (7) of the bill of complaint.

8. The defendant admits receiving recent notices of the alleged infringement of the patents in suit after it voluntarily disclosed its machines to the plaintiff and invited the plaintiff into its plant to examine the machines and operate them. The defendant made full and complete disclosure of these machines and has continued their operation in the same manner that it continued the operations of the machines prior to any notices from the plaintiff.

9. Answering paragraph (10) of the bill of complaint, the defendant denies the allegations thereof.

10. The defendant denies the necessity for any reason or ground for the relief as prayed for.

11. Further answering, defendant avers that the alleged invention described and claimed in the respective patents and attempted to be patented thereby, and every material and substantial part of said alleged inventions,

did not exhibit or embody any material or substantial variation or change from the devices or methods well known in the art relating to such devices and methods as existed prior to the dates of the alleged inventions or discoveries thereof by the said patentees respectively, and under any of the patents, publications and prior uses, etc., cited hereinafter, and did not, at such dates of alleged invention, involve the excercise of inventive faculty and did not constitute proper subject-matter for the grant of Letters Patent within the meaning and intent of the statutes of the United States relating to the grant of patents for inventions, and that said patents, and each of them, are invalid and void for lack of patentable novelty.

12. Further answering, defendant avers that the said patents in suit, and each of them are invalid and void in that the alleged inventions described and claimed in said patents, and every material and substantial part thereof, were anticipated and deprived of patentable novelty by the following patents and publications, were shown and described and/or or patented and/or published prior to the alleged inventions or discoveries thereof by the said patentees respectively, or more than two years prior to the filing of the applications for said respective patents, in the following publications and patents, among others, to-wit:

As to the Ronald F. McFeely Patent No. 1,558,737:—

UNITED STATES PATENTS

Patent No.	Inventor	Date of Issue
244,714	Copeland, G. W. et al	July 19, 1881 (Filed June 21, 1881)
344,725	Cross, William C.	June 29, 1886 (Filed May 7, 1886)
364,088	Chase, Frank	May 31, 1887 (Filed Apr. 5, 1887)
402,959	Millet, John W.	May 7, 1889 (Filed Dec. 27, 1888)
524,445	Lombard, Nathaniel	Aug. 14, 1894 (Filed Nov. 10. 1893)
524,446	Lombard, Nathaniel	Aug. 14, 1894 (Filed Nov. 15, 1893)
579,928	Keith, T. K., et al	Mar. 30, 1897 (Filed July 27, 1896)
588,569	Grandy, Edward F.	Aug. 24, 1897 (Filed July 29, 1896)

Patent No.	Inventor	Date of Issue
596,323	Eaton, Arthur W.	Dec. 28, 1897 (Filed Nov. 11, 1896)
601,933	Brock, Matthias	Apr. 5, 1898 (Filed May 24, 1897)
601,935	Brock, Matthias	Apr. 5, 1898 (Filed Feb. 14, 1896)
629,476	Stirckler, Albert E.	July 25, 1899 (Filed Dec. 24, 1897)
672,624	King, Charles W.	Apr. 23, 1901 (Filed Oct. 25, 1894)
701,412	Snow, Stephen	June 3, 1902 (Filed June 25, 1900)
935,065	Stiggins, Edward A.	Sept. 28, 1909 (Filed May 25, 1906)
946,708	Snow, Stephen	Jan. 18, 1910 (Filed Sept. 5, 1905). Reissued
958,280	Plant, T. G.	May 17, 1910 (Filed Sept. 28, 1908) Reissued
1,002,818	Brock, Matthias	Sept. 12, 1911 (Filed Mar. 19, 1910)
RE 13,292	Snow, Stephen	Sept. 19, 1911 (Filed July 29, 1910)
1,023,854	Keyes, Eugene L.	Apr. 23, 1912 (Filed Apr. 30, 1908)
1,030,519	MacLeod, Albert A.	June 25, 1912 (Filed Nov. 8, 1911)
1,030,562	Brock, Matthias	June 25, 1912 (Filed July 25, 1910)
1,030,847	Norden, Carl S.	June 25, 1912 (Filed Mar. 18, 1911)
1,033,946	Russell, Arthur L.	July 30, 1912 (Filed Aug. 8, 1907)
RE 13,505	Glass, Perley R.	Jan. 7, 1913 (Filed Mar. 11, 1912)
RE 13,507	Plant, T. G.	Jan. 7, 1913 (Filed Apr. 18, 1912)
1,066,375	Brock Matthias	July 1, 1913 (Filed Aug. 14, 1909)
1,068,843	Bayard, Emery	July 29, 1913 (Filed Oct. 30, 1911)
1,110,171	Walther, Heinrich	Sept. 8, 1914 (Filed Dec. 10, 1906)
RE 13,718	Plant, T. G.	Apr. 21, 1914 (Filed Apr. 9, 1912)

Patent No.	Inventor	Date of Issue
1,104,016	Stiggins, Edward A.	July 21, 1914 (Filed Nov. 16, 1904)
1,129,881	McFeely, Ronald F.	Mar. 2, 1915 (Filed Aug. 14, 1909)
1,129,882	McFeely, Ronald F.	Mar. 2, 1915 (Filed Apr. 17, 1911)
1,130,142	Cavanagh, James	Mar. 2, 1915 (Filed Apr. 28, 1911)
1,132,630	Stiggins, Edward A.	Mar. 23, 1915 (Filed Apr. 22, 1911)
1,132,978	Russell, Arthur L.	Mar. 23, 1915 (Filed Feb. 29, 1912)
1,135,945	Brothers, Eli	Apr. 13, 1915 (Filed June 30, 1908)
1,135,958	McFeely, Ronald F.	April 15, 1915 (Filed May 28, 1910)
1,168,011	LaChappelle, E. I.	Jan. 11, 1916 (Filed May 23, 1913)
1,168,963	Perri, Angelo	Jan. 18, 1916 (Filed Aug. 26, 1915)
1,171,383	Baxter, William C.	Feb. 8, 1916 (Filed Feb. 24, 1913)
1,188,616	Brock, Matthias	June 27, 1916 (Filed June 29, 1912)
1,188,617	Brock, Matthias	Reissued June 27, 1916 (Filed July 9, 1915)
1,197,437	Brock, Matthias	Sept. 5, 1916 (Filed Oct. 28, 1912)
1,198,439	Brock, Matthias	Sept. 5, 1916 (Filed Feb. 2, 1916)
1,222,127	Perri, Angelo	Apr. 10, 1917 (Filed May 15, 1916)
1,245,117	Merrick, Frank W.	Oct. 30, 1917 (Filed Apr. 28, 1913)
1,284,870	Brock, Matthias	Nov. 12, 1918 (Filed June 1, 1915)
RE 14,576	Brock, Matthias	Dec. 24, 1918 (Filed May 6, 1918)
1,368,968	Pym, Charles F.	Feb. 15, 1921 (Filed Dec. 13, 1915)

BRITISH PATENTS

Patent No.	Inventor	Date of Issue
9,793	McFeely, Ronald F.	Aug. 5, 1909 (Filed May 5, 1908)
13,947	Boult, Alfred J.	1913 (Filed Dec. 13, 1912)

GERMAN PATENTS

Patent No.	Inventor	Date of Issue
90,388	Ferguson, George	Feb. 16, 1897 (Filed Oct. 16, 1894)
248,247	United Shoe Machinery Co.	June 24, 1912 (Filed May 19, 1908)
293,626	United Shoe Machinery Co.	Aug. 21, 1916 (Filed Jan. 19, 1915)

As to the Charles H. Hoyt Patent No. 1,508,394:

UNITED STATES PATENTS

Patent No.	Inventor	Date of Issue
244,714	Copeland, G. W. et al	July 19, 1881 (Filed June 21, 1881)
344,725	Cross, William C.	June 29, 1886 (Filed May 7, 1886)
364,088	Chase, Frank	May 31, 1887 (Filed April 5, 1887)
524,445	Lombard, Nathaniel	Aug. 14, 1894 (Filed Nov. 10, 1893)
524,446	Lombard, Nathaniel	Aug. 14, 1894 (Filed Nov. 15, 1893)
569,231	Ray, Charles O.	Oct. 13, 1896 (Filed Aug. 5, 1895)
579,928	Keith, T. K. et al	Mar. 30, 1897 (Filed July 17, 1896)
596,323	Eaton, Arthur W.	Dec. 28, 1897 (Filed Nov. 11, 1896)
601,933	Brock, Matthias	Apr. 5, 1898 (Filed May 24, 1897)
601,935	Brock, Matthias	Apr. 5, 1898 (Filed Feb. 14, 1896)

Patent No.	Inventor	Date of Issue
629,476	Stirckler, Albert E.	July 25, 1899 (Filed Dec. 24, 1897)
701,412	Snow, Stephen	June 3, 1902 (Filed June 25, 1900)
935,065	Stiggins, Edward A.	Sept. 28, 1909 (Filed May 25, 1906)
946,708	Snow, Stephen	Jan. 18, 1910 (Filed Sept. 5, 1905)
974,202	Stiggins, Edward A.	Reissued Nov. 1, 1910 (Filed Nov. 16, 1904)
1,002,818	Brock, Matthias	Sept. 12, 1911 (Filed Mar. 19, 1910)
1,030,519	MacLeod, Albert A.	June 25, 1912 (Filed Nov. 8, 1911)
RE 13,505	Glass, Perley R.	Jan. 7, 1913 (Filed Mar. 11, 1912)
RE 13,507	Plant, T. G.	Jan. 7, 1913 (Filed Apr. 18, 1912)
1,066,375	Brock, Matthias	July 1, 1913 (Filed Aug. 14, 1909)
1,129,881	McFeely, Ronald F.	Mar. 2, 1915 (Filed Aug. 14, 1909)
1,132,630	Stiggins, Edward A.	Mar. 23, 1915 (Filed Apr. 22, 1911)
1,168,963	Perri, Angelo	Jan. 18, 1916 (Filed Aug. 26, 1915)
1,188,616	Brock, Matthias	June 27, 1916 (Filed June 29, 1912)
1,188,617	Brock, Matthias	Reissued June 27, 1916 (Filed July 9, 1915)
1,197,439	Brock, Matthias	Sept. 5, 1916 (Filed Feb. 2, 1916)
1,222,127	Perri, Angelo	Apr. 10, 1917 (Filed May 15, 1916)
RE 14,576	Brock, Matthias	Dec. 24, 1918 (Filed May 16, 1918)
1,368,968	Pym, Charles F.	Feb. 15, 1921 (Filed Dec. 13, 1915)
1,558,737	McFeely, Ronald F.	Oct. 27, 1925 (Filed Aug. 16, 1916)

BRITISH PATENTS

Patent No.	Inventor	Date of Issue
451	The British United Shoe Mach. Co., Ltd.	Jan. 6, 1916 (Filed Jan. 11, 1915)
9,793	McFeely, Ronald F.	Aug. 5, 1909 (Filed May 5, 1908)
13,947	Boult, Alfred J.	1913 (Filed Dec. 13, 1912)

GERMAN PATENTS

Patent No.	Inventor	Date of Issue
90,388	Ferguson, George	Feb. 16, 1897 (Filed Oct. 16, 1894)
325,624	Moenus Maschinenfabrik	Sept. 18, 1920 (Filed May 5, 1918)
359,195	United Shoe Machinery Corp.	Sept. 22, 1922 (Filed May 22, 1920)

As to the Charles F. Pym Patent No. 1,368,968:

UNITED STATES PATENTS

Patent No.	Inventor	Date of Issue
244,714	Copeland, G. W. et al	July 19, 1881 (Filed June 21, 1881)
344,725	Cross, William C.	June 29, 1886 (Filed May 7, 1886)
364,088	Chase, Frank	May 31, 1887 (Filed Apr. 5, 1887)
385,557	Houghton, John Q. A.	July 3, 1888 (Filed July 30, 1887)
524,445	Lombard, Nathaniel	Aug. 14, 1894 (Filed Nov. 10, 1893)
524,446	Lombard, Nathaniel	Aug. 14, 1894 (Filed Nov. 15, 1893)
579,928	Keith, T. K., et al	Mar. 30, 1897 (Filed July 17, 1896)
596,323	Eaton, Arthur W.	Dec. 28, 1897 (Filed Nov. 11, 1896)
601,933	Brock, Matthias	Apr. 5, 1898 (Filed May 24, 1897)
601,935	Brock, Matthias	Apr. 5, 1898 (Filed Feb. 14, 1896)
629,476	Stirckler, Albert E.	July 25, 1899 (Filed Dec. 24, 1897)

Patent No.	Inventor	Date of Issue
701,412	Snow, Stephen	June 3, 1902 (Filed June 25, 1900)
946,708	Snow, Stephen	Jan. 18, 1910 (Filed Sept. 5, 1905) Reissued
957,949	Glass, Perley R.	May 17, 1910 (Filed Dec. 30, 1905) Reissued
958,291	Plant, T. G.	May 17, 1910 (Filed Dec. 28, 1906) Reissued
1,002,818	Brock, Matthias	Sept. 12, 1911 (Filed Mar. 19, 1910)
RE 13,292	Snow, Stephen	Sept. 19, 1911 (Filed July 29, 1910)
1,030,519	MacLeod, Albert A.	June 25, 1912 (Filed Nov. 8, 1911)
1,030,847	Norden, Carl S.	June 25, 1912 (Filed Mar. 18, 1911)
RE 13,505	Glass, Perley R.	Jan. 7, 1913 (Filed Mar. 11, 1912)
RE 13,507	Plant, T. G.	Jan. 7, 1913 (Filed Apr. 18, 1912)
1,066,375	Brock, Matthias	July 1, 1913 (Filed Aug. 14, 1909)
RE 13,718	Plant, Thomas G.	Apr. 21, 1914 (Filed Apr. 9, 1912)
1,124,958	Russell, Arthur L.	Jan. 12, 1915 (Filed July 26, 1912)
1,129,881	McFeely, Ronald F.	Mar. 2, 1915 (Filed Aug. 14, 1909)
1,132,630	Stiggins, Edward A.	Mar. 23, 1915 (Filed Apr. 22, 1911)
1,135,945	Brothers, Eli	Apr. 13, 1915 (Filed June 30, 1908)
1,168,963	Perri, Angelo	Jan. 18, 1916 (Filed Aug. 26, 1915)
1,188,616	Brock, Matthias	June 27, 1916 (Filed June 29, 1912) Reissued
1,197,439	Brock, Matthias	Sept. 5, 1916 (Filed Feb. 2, 1916)
1,188,617	Brock, Matthias	June 27, 1916 (Filed July 9, 1915)
1,222,127	Perri, Angelo	Apr. 10, 1917 (Filed May 15, 1916)

1,245,117	Merrick, Frank W.	Oct. 30, 1917 (Filed Apr. 28, 1913)
RE 14,576	Brock, Matthias	Dec. 24, 1918 (Filed May 16, 1918)

BRITISH PATENTS

Patent No.	Inventor	Date of Issue
9,793	McFeely, Ronald F.	Aug. 5, 1909 (Filed May 5, 1908)
13,947	Boult, Alfred Julius	1913 (Filed Dec. 13, 1912)

GERMAN PATENTS

Patent No.	Inventor	Date of Issue
90,388	Ferguson, George	Feb. 16, 1897 (Filed Oct. 16, 1894)
124,641	Stirckler, Albert E.	Nov. 4, 1901 (Filed Aug. 7, 1898)
293,626	United Shoe Machinery Company	Aug. 21, 1916 (Filed Jan. 19, 1915)

13. Further answering, defendant avers that the said patents in suit, and each of them, are invalid and void in that long prior to the alleged inventions of the said respective patentees, or more than two years prior to the filing of the applications for said respective patents in suit, the alleged inventions purported to be patented in the respective patents, and all material and substantial parts thereof, were invented and/or known or used and/or in public use and/or on sale in the United States by the following named persons and corporations at the following named places, to wit:

(a) United Shoe Machinery Company, and the officers and executives thereof, and employees thereof, at Paterson, New Jersey, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

(b) The Consolidated & McKay Lasting Machine Company, and the officers and executives thereof, and employees thereof, at Portland, Maine, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

(c) Union Lock Stitch Company, and the officers and executives thereof, and employees thereof, at Boston, Massachusetts, and elsewhere, more than

two years prior to the date of application for said Letters Patent in suit.

(d) The Automatic Lasting Machine and Manufacturing Company, and the officers and executives thereof, and employees thereof, at Portland, Maine, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

(e) John W. Millet and Alfred Dolge, and others, at Dolgeville, New York and New York, New York, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

(f) Euclid I. La Chapelle, and others, at Beverly, Massachusetts, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

(g) The Puritan Lasting Machine Company, and the officers and executives thereof, and employees thereof, at Portland, Maine, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

(h) Edward F. Grandy, and others, at Everett, Massachusetts, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

(i) The Chase Lasting Machine Company, and the officers and executives thereof, and employees thereof, at Portland, Maine, and Boston, Massachusetts, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

(j) The Seaver Process Lasting Company, and the officers and executives thereof, and employees thereof, at Boston, Massachusetts, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

(k) Perley R. Glass and Thomas G. Plant, and others, at Quincy, Massachusetts, and Boston, Massachusetts, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

(l) John Q. A. Houghton, and others, at Baltimore, Maryland, and elsewhere, more than two years prior to the date of application for said Letters Patent in suit.

Answer and Counterclaim.

14. Further answering, defendant avers that the said patents in suit, and each of them, do not describe the alleged inventions thereof respectively, as required by law in such full, clear and exact terms as to enable any person skilled in the art, to which said inventions purport to appertain, to comprehend, make or use the same, and said patents do not point out and distinctly claim, as required by law, the improvement or improvements alleged by the plaintiff to be patented by said patents respectively; wherefore defendant avers that said patents, and each of them, are invalid and void.

15. Further answering, defendant avers that by reason of proceeding had in the United States Patent Office in and during the prosecution of the application for the patents in suit, and by reason of the restrictions and limitations imposed upon said patents, as a condition to the grants thereof, the patentees of said patents and the plaintiff herein are estopped from maintaining and asserting said patents in any such scope or effect as to cover the subject-matter purported to be patented thereby or as to cover or embrace any device or construction made, used or sold by defendant.

16. Further answering, defendant avers that the alleged inventions purported to be patented in the respective patents in suit, and each of them, are devoid of patentable novelty and/or patentable utility, and that said patents, and each of them, are therefore invalid and void.

17. Further answering, defendant avers that each of the patents in suit, respectively, purports to patent the juxtaposing, bringing together, or assembling of two or more devices or steps in methods which were separately shown or described and/or patented and/or published and/or known or used in this country prior to the alleged invention of, or more than two years before the filing of the application from which such patent issued, and that said separate devices or steps of methods were capable of accomplishing the desired result, and, when so juxtaposed, brought together, or assembled, each of said devices or method steps operated according to its old and well known method or mode of operation and performed its old functions and accomplished its old results, and that when said separate devices were juxtaposed, brought together, as assembled by the respective patentees in the said patents in suit, the devices and methods did not produce any new, useful and unobvious result; and the methods, the structure, mode of

operation of and the methods carried out by the separate devices and methods remained unchanged in the assembled or combined device or method; and that therefore each of the patents in suit and each claim of each of said patents is invalid and void.

18. Further answering, defendant avers that each of the patents in suit, and each of the claims of each of said patents, is invalid and void in that they purport to patent unpatentable aggregations of structures.

19. Further answering, defendant avers that each of the claims of each of the patents in suit is invalid and void in that each claim is functional and therefore unpatentable.

20. Further answering the bill of complaint, defendant avers that the patents in suit are invalid and void for the reason that, for the purpose of deceiving the public, the descriptions and specification as filed in the Patent Office for said patents were made to cover less than the whole truth relevant to the inventions, or were made to cover more than was relevant to the alleged inventions and more than was necessary to produce the desired effects.

21. Further answering the bill of complaint, defendant avers that it is not guilty of any act of infringement of any of the claims of any of the patents in suit.

22. Defendant avers that it has been diligent in ascertaining and setting forth herein the several facts alleged including the various instances of prior invention, prior knowledge, prior public use, and prior sale or offer for sale, prior publication and prior patenting of the alleged invention or inventions of the said patents in suit, and each of them, and defendant avers that it believes other facts and instances do exist. Wherefore, it prays leave to add to this answer by amendment or otherwise such other facts or instances when it has ascertained such facts or learned of such instances.

23. Defendants avers that the patents in suit are invalid because said patents in suit constitute an effort to extend the monopolies of expired patents on old combinations by improving or substituting one element thereof, while the construction and operation is otherwise unchanged; and these patents in suit are further invalid because they merely consist of old mechanisms from which certain parts have been removed and equivalent old mechanisms showing the prior art have been substituted in an effort to secure a new and patentable combination, all contrary to law.

24. Insofar as defenses pleaded herein are inconsistent, they are pleaded in the alternative under General Equity Rule 30.

25. Further answering, defendant avers that the bill of complaint is defective and insufficient and violates the Statutes of Limitations contained in R. S. 4921, in that it fails to allege that the asserted infringement of each patent occurred within six years prior to the filing of the bill of complaint and after issuance of the patent.

26. Defendant further avers that it is advised and believes that large numbers of the machines of the type which it employs, which it purchased from Germany, have been sold and put into use in the United States and in Europe without any complaint or suit being filed by the plaintiff herein and, based upon such acquiescence by the plaintiff, defendant herein innocently proceeded to the purchase and use of said machines and has used them for some time last past without any complaint on the part of the plaintiff herein, until the defendant herein voluntarily made a full disclosure of said machines and their method of operation to the plaintiff herein, whereupon this plaintiff, upon seeing a typical machine of the defendant, brought this suit against the defendant.

WHEREFORE, defendant prays that the bill of complaint be dismissed at plaintiff's cost.

COUNTERCLAIM

1. Defendant hereby avers, by way of asking for affirmative relief, that the patents in suit under Nos. 1,558,737; 1,508,394 and 1,368,968 are null and void for the reasons set forth in the foregoing answer, and that said patents are not infringed by any machine being used by the defendant; and the defendant hereby seeks a declaratory judgment of this Court under the Declaratory Judgment Act of the United States of 1934 (United States Judicial Code, Sec. 274d, 28 U.S.C.A. 400) to the effect that the aforementioned patents are null and void and not infringed by the defendant.

WHEREFORE, the defendant prays for a decree of this Court that said patents in suit, Nos. 1,558,737; 1,508,394 and 1,368,968 are null and void and invalid and that the defendant does not infringe said patents.

The Williams Manufacturing Company.
By F. L. Williams,
Secy. & Treas.

H. A. Toulmin,
H. A. Toulmin, Jr.,
Counsel for Defendant.

(Duly verified).

MOTION OF PLAINTIFF TO DISMISS DEFENDANT'S COUNTERCLAIM

(Filed December 27, 1937.)

Now comes the plaintiff, by its attorneys, and moves that defendant's counterclaim, contained on page 17 of defendant's answer, be dismissed and stricken from defendant's answer for the reason that the same is defective and insufficient, upon its face, both in law and in fact, to constitute a valid cause of action in equity or a counterclaim under the Federal Declaratory Judgment Act (28 U.S.C.A. 400) or Equity Rule 30.

C. E. Hammett, Jr.,
Fish, Richardson & Neave,
Counsel for Plaintiff.

Bennett R. Knight,
Solicitor for Plaintiff.

This is a patent infringement suit. Defendant's counterclaim in this case, which is contained on page 17 of defendant's answer, consists of a single sentence in which defendant avers that the patents in suit are void and not infringed by the defendant and asks for a declaratory judgment that these patents are void and not infringed. In a second sentence, defendant repeats its prayer for a decree that the patents are invalid and not infringed.

This counterclaim obviously fails to state any cause of action, either under the Declaratory Judgment Statute or under Equity Rule 30. In addition to the obvious defects of the counterclaim in matters of both form and substance, it is obvious that it does not raise any issues not raised by the bill of complaint and the answer thereto. Counterclaims of this nature were exhaustively considered in the case of Hann v. Venetian Blind Corp., 15 Fed. Supp., 372, and the Court there concluded that a counterclaim like the present one was not sufficient and should be stricken from the answer.

This Court recently said, in the cases of Petersime Incubator Co. v. Bundy Incubator Co. et al., 34 U. S. Pat. Q. 251 and Peerless Bread Machinery Corporation v. Day Co., 34 U. S. Pat. Q. 254 that a bill for declaratory judgment should allege that the defendant's (here plaintiff's) representations of infringement were made in bad faith. No such allegation appears in defendant's counterclaim.

Further, the present counterclaim fails to allege infringement of the patents in suit by the defendant, an allegation said to be necessary in Bettis v. Patterson

Motion of Plaintiff to Dismiss Defendant's Counterclaim.

Ballagh Corp., 16 Fed. Supp. 455 and in New Discoveries Inc. v. Wisconsin Alumni Research Foundation, 13 Fed. Supp. 596.

It is, therefore, respectfully submitted that defendant's counterclaim should be dismissed.

C. E. Hammett, Jr.,
Fish, Richardson & Neave,
Counsel for Plaintiff.

.....,
Solicitor for Plaintiff.

PLAINTIFF'S MOTION FOR FURTHER AND BETTER PARTICULARS.

(Filed January 10, 1938).

Now comes the plaintiff, by its attorneys, and moves that the defendant be directed to file herein and to serve on plaintiff's solicitor within twenty (20) days, further and better particulars under and in accordance with Equity Rule 20, as follows:

1. What patents and publications, including those referred to in Paragraph 12 of the answer to the bill of complaint, will be relied upon by defendant at the trial of this cause to show the prior state of the art, to support the contention of anticipation or for any other purpose, and, of those so relied upon on which will defendant rely at such trial as showing anticipation of the patents in suit, or any of them, particularizing as to such latter patent or patents?

2. What instance or instances of alleged prior invention, knowledge, use and/or sale, as alleged in Paragraphs 11, 13, and 17 of the answer to the bill of complaint, and what additional instance or instances of alleged prior invention, knowledge, use and/or sale, will defendant attempt to prove at the trial of this cause,

and what particular instance or instances will be relied upon by the defendant to sustain its defense or defenses (particularizing as to the description of such defense) and, with respect to each such instance, state:

(a) Where and with whose knowledge the alleged prior invention, knowledge, use and/or sale occurred.

(b) The construction, purpose and operation of the thing or things alleged to have been so invented, known, used and/or sold.

(c) Whether there is in existence any thing, system or apparatus alleged to have been made, sold, used, known and/or invented prior to the inventions by the patentees of the patents in suit, or prior to the filing of the applications for the patents in suit, or more than two years prior to the dates of application for said patents in suit, or any records, documentary or otherwise, concerning the same; and if yea, describe the same specifically and state when and where the same may be inspected by plaintiff or its counsel or designee?

3. State wherein the patents in suit, or any of them, fail adequately to describe the respective inventions thereof, or to point out and distinctly claim the same as alleged in Paragraph 14 of the answer to the bill of complaint.

4. State wherein the descriptions and specifications as filed in the Patent Office for the patents in suit were made to cover less than, or more than, was relevant to the inventions thereof, as alleged in Paragraph 20 of the answer to the bill of complaint.

Fish, Richardson & Neave,
Attorneys for Plaintiff.

Bennett R. Knight,
Solicitor for Plaintiff.

This is a patent infringement suit, involving three patents. In its answer, defendant has set up numerous prior art patents and publications which are alleged to anticipate the patents in suit. Against one patent in suit, defendant has set up fifty-five alleged anticipating patents, against another patent in suit defendant has set up thirty-six alleged anticipating patents and against the third patent in suit, defendant has set up thirty-nine alleged anticipating patents. There is a certain amount of overlapping in these three lists of patents, but even so, sixty-six separate patents are alleged as

anticipations. The answer also sets up twelve alleged prior uses.

It is obvious that defendant can have no intention of relying on anything like this ridiculously large number of patents and prior uses and one purpose of the present motion is to require defendant to advise plaintiff which of these many patents and prior uses it will rely on at the trial. The expense of studying all these patents and investigating all these prior uses would be very large indeed and three-fourths of it would probably also be entirely useless, since defendant cannot have any serious intention of relying on anything like the number of prior patents, publications and prior uses set up in the answer. In the interest of simplification of the issues at the trial and to save the expense of a great deal of unnecessary work in preparation for the trial, plaintiff asks that defendant state how many of these alleged patents, publications and prior uses it will really rely on.

The answer further generally alleges that the patents in suit do not fully describe the inventions thereof, or point out and distinctly claim the same and that the descriptions and specifications filed in the Patent Office were made to cover less or more than was relevant to the invention. Nothing can be made of these vague allegations in their present state and plaintiff therefore asks that defendant be more specific as to these defenses.

Among the many authorities supporting the attached motion for particulars, mention may be made of Lapeer Trailer Corp. v. Freuhauf Trailer Co., 24 Fed. (2d) 595; Beacon Folding Mach. Co. v. Rotary Mach. Co., 23 Fed. (2d) 345; A. B. Dick Co. v. Underwood Typewriter Co., 235 Fed. 300.

Plaintiff is unable intelligently to prepare for the trial of this case without the further particulars sought by the attached motion.

Fish, Richardson & Neave,
Attorneys for Plaintiff.

Bennett R. Knight,
Solicitor for Plaintiff.

(Duly verified)

PLAINTIFF'S FURTHER BILL OF PARTICULARS.

(Filed March 5, 1938).

Now comes the plaintiff and pursuant to agreement made between counsel in the presence of the Court on February 1, 1938 specifies the claims to be relied on at the trial, as follows:

Pym patent No. 1,368,968, Claim 168
Hoyt patent No. 1,508,394, Claims 19 and 21
McFeely patent No. 1,558,737, Claims 6, 23, 42, 68, 71, 85 and 91.

Fish, Richardson & Neave,
Counsel for Plaintiff.

Boston, Massachusetts,
March 3, 1938.

STATEMENT OF THE PRIOR ART RELIED UPON.

(Filed March 18, 1938).

Now comes the defendant, pursuant to the election of claims by the plaintiff on the 3rd day of March, 1938, and specifies that its principal prior art anticipation patents as to each patent in suit and the claims in issue that defendant expects to rely upon at this time are as follows. This statement is made prior to knowing the exact theory of plaintiff's case and this selection of prior art is necessarily tentative and subject to final revision at the trial if the necessities of the trial demand it.

Copeland et al No. 244,714: as to McFeely No. 1,558,737, claims 6 and 85.

Bayard No. 1,068,843: as to McFeely No. 1,558,737, claims 6 and 85.

McFeely No. 1,129,881: as to McFeely No. 1,558,737, all claims in issue; as to Pym No. 1,368,968, claim 168; as to Hoyt No. 1,508,394, claims 19 and 21.

Keyes Patent No. 1,023,854: as to McFeely No. 1,558,737, all claims in issue; as to Hoyt No. 1,508,394, claim 21.

Statement of Prior Art Relied Upon.

Eaton No. 596,323: as to McFeely No. 1,558,737, claims 6 and 85; as to Pym No. 1,368,968, claim 168.

Pym. No. 1,368,968: as to McFeely No. 1,558,737, claims 6, 23, 42, 68, 71, 85 and 91; as to Hoyt No. 1,508,394, claims 19 and 21.

Snow No. 701,412: as to McFeely No. 1,558,737, claims 6, 23 and 85; as to Hoyt No. 1,508,394, claims 19 and 21; as to Pym No. 1,368,968, claim 168.

Brock No. 1,188,616: as to McFeely No. 1,558,737, all claims in issue; as to Pym No. 1,368,968, claim 168; as to Hoyt No. 1,508,394, claims 19 and 21.

Brock No. 1,002,818: as to McFeely No. 1,558,737, claim 23.

Plant No. 958,280: as to McFeely No. 1,558,737, claims 23, 42, 68, 71 and 91; as to Hoyt No. 1,508,394, claim 21.

Brock No. 601,935: as to McFeely No. 1,558,737, claims 6, 23, 68, 85, 91; as to Pym No. 1,368,968, claim 168; as to Hoyt No. 1,508,394, claims 19 and 21.

Merrick No. 1,245,117: as to McFeely No. 1,558,737, all claims in issue.

Brothers No. 1,135,945: as to McFeely No. 1,558,737, claim 42; as to Pym No. 1,368,968, claim 168.

McFeely No. 1,135,958: as to McFeely No. 1,558,737, claims 68, 71 and 91; as to Pym No. 1,368,968, claim 168; as to Hoyt No. 1,508,394, claims 19 and 21.

Stiggins No. 1,132,630: as to McFeely No. 1,558,737, claims 68, 71 and 91.

Lombard No. 524,445: as to McFeely No. 1,558,737, all claims in issue; as to Pym No. 1,368,968, claim 168.

McFeely No. 1,558,737: as to Hoyt No. 1,508,394, claims 19 and 21.

Cavanagh No. 1,130,142: as to McFeely No. 1,558,737, claims 68 and 71; as to Hoyt No. 1,508,394, claim 21.

MacLeod No. 1,030,519: as to Hoyt No. 1,508,394, claim 21.

Snow No. 946,708: as to Hoyt No. 1,508,394, claim 21.

Toulmin & Toulmin,
Counsel for Defendant.

ENTRY WITHDRAWING PLAINTIFF'S MOTION TO DISMISS COUNTERCLAIM OF THE DEFENDANT AND LEAVE TO FILE ANSWER OF PLAINTIFF.

(Filed July 12, 1938).

Upon application of the plaintiff and for good cause shown the said plaintiff is hereby authorized to withdraw its motion to dismiss the counterclaim of the defendant previously filed herein. Plaintiff is further authorized to file its answer to the defendant's counterclaim.

Nevin,
U. S. District Judge.

Bennett R. Knight,
For Plaintiff.

PLAINTIFF'S ANSWER TO DEFENDANT'S COUNTERCLAIM.

(Filed July 12, 1938).

Now comes the plaintiff and, answering defendant's counterclaim, denies each and every averment of said counterclaim and further denies that the defendant is entitled to a declaratory judgment or decree or to any other relief whatever under said counterclaim.

Wherefore plaintiff prays that defendant's counterclaim be dismissed with costs to plaintiff.

UNITED SHOE MACHINERY CORPORATION,
By Fish, Richardson & Neave,
Its Attorneys.

Bennett R. Knight,
Solicitor for Plaintiff.

TRANSCRIPT OF TESTIMONY

(Filed August 14, 1939.)

MORNING SESSION,

MONDAY, JANUARY 16, 1939.

Court met pursuant to adjournment. This cause coming on to be heard, and counsel being present as heretofore noted, the trial proceeded as follows:

MR. LYMAN: * * * Now, it is not an easy and simple case to understand; it is a complex machine, complex patent. We have done what we can to simplify it. We are only relying upon six claims out of the one hundred or more in McFeely, and two in the Hoyt patent. There are a good many other claims in this patent that are infringed, but Your Honor will remember that upon some interlocutory matter the court said: "This is too complicated; cut down your claims."

THE COURT: No, I said to anticipate the final result and to narrow the issues.

MR. LYMAN: It was a wise order, Your Honor. It does simplify the issues. It has been conformed to. I simply wanted to point out the fact we are simply relying on these claims.

THE COURT: I understand.

MR. LYMAN: We further simplified the issue by dropping out a patent to Pym which was originally relied upon, which showed a detail of adjustment mechanism that is used in defendant's machine, or certain features of it. But that patent expired pending this suit and we therefore did not want to burden the court with it and we dropped the suit as to that phase. * * *

MR. LYMAN: I want to put in the record what has been already stated as to the claims upon which we rely. The claims upon which we rely in the McFeely patent are claims 6, 23, 42, 68, 71 and 85. The claims in the Hoyt patent relied upon are claims 19 and 21. As I have already stated, we have notified the other side that we should not rely upon the Pym patent, which has expired, in the interests of cutting down the issues in this case. There is one other claim there, claim 91. Will you add that to the McFeely list? There are seven claims in the McFeely, 6, 23, 42, 68, 71, 85 and 91. * * *.

Counsel for plaintiff thereupon offered in evidence printed copies of the two patents in suit, which are made part of this record, marked as follows:

Plaintiff's Exhibit No. 1, No. 1,558,737, to McFeely, October 27, 1925.

Plaintiff's Exhibit No. 2, No. 1,508,394, to Hoyt, September 16, 1924.

MR. LYMAN: My brother and I have agreed, Your Honor, to the usual stipulation, that copies of patents may be received in evidence instead of formal certified copies. There is no question about the title here because these patents were issued to the plaintiff.

THE COURT: Any other stipulations to be entered into at this time?

MR. TOULMIN: No, Your Honor.

MR. LYMAN: We have agreed about the reporter.

MR. TOULMIN: We have agreed we will split the costs, each of us getting a copy and the original for Your Honor, and that is to follow the application of costs in due season.

THE COURT: All right. Call your first witness.

Thereupon,

Rene E. Duplessis,

called as a witness on behalf of the plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Hammett:

Q1 Please state your name, age and residence. A. Rene E. Duplessis.

Q2 By whom are you employed, Mr. Duplessis? A. I am forty-nine years old; employed by the United Shoe Machinery Corporation in Beverly, in their experimental department.

Q3 I don't think we got your residence. A. 18 Corning Street, Beverly, Massachusetts.

Q4 What has been the nature of your work with the United, please? A. I have been employed at the United for thirty-five years, from 1907 to 1911 as a draftsman, and from 1911 up to the present time as a designer, shoe machinery, mostly on lasting machines.

Q5 Prior to the time that the United Shoe Model A machine came out what was the prevailing commercial practice in the lasting of heel seats of shoes? A. Prior to the time that the Model A heel seat lasting machine was put out by the United Shoe the prevailing method was the use of bed machines.

Q6 Will you please give the court a brief description of the bed machine and the sequence of operations involved? A. In the bed machine the operator takes a shoe in his left hand and he places it on a spindle that is at the right hand of the machine. And in the bed machine we have a toe head and a heel head, and in the lasting of the heel the shoe is placed on the heel spindle and set over the toe rest as he puts his right hand on the

wheel that is fastened to the heel head. He then brings that heel head forward and locks it in place, guides the shoe with his hand from the edge rest, and with his hand on the right wheel he rotates the toe and wheel until he brings the rear end of the shoe in contact with the heel band. He then lets go of that hand wheel and takes hold of a lasting wiper handle with his right hand, and with his right foot on the treadle he raises the shoe up to a preliminary wiping level, then makes one wipe-over with the handle of the wipers. Then he puts his hand on the hand wheel handle again and sets the hand wheel up as tight as he can; so as to set the shoe into the heel band as tightly as possible by his hand. There is power on the left-hand side of the machine which closes the heel band. He engages the clip of the machine by pressing a lever up with his left knee. He then, with his right hand again on the handle and his left hand on the shoe, different parts of it, to guide the leather, if necessary, wipes the shoe over a successive number of times, as many as are necessary, until he is satisfied that the shoe is wiped as well as he can do it. When he is satisfied with that he takes a hand tacker, with his left hand, from a hook on the side of the machine. With his right hand he reaches over and picks up a maul, and goes through a process of driving individual tacks around that heel seat, holding the leather down as flat as he can. He then places the maul to one side and hooks up the tacker again. Then he does his toe lasting, whatever is necessary to last the toe. In McKay shoes the process is almost identical as with the heel seat, and in welt shoes they use different fastenings. Then he releases the shoe from the machine with his left knee; pressing the knee lever he takes the shoe out of the machine. If he is not satisfied with the looks of the heel seat he places it on a pin, with his left hand reaches over, picks up his lasting pincers, and tacks the heel wherever necessary to get it as fast as he possibly can. In the process of doing that he may upset the edge of the shoe somewhat; then he tries to iron it out with the handle of his maul or the handle of his pincers. And that is the process of the bed machine.

Q7 I hand you a set of nine photographs and ask you whether those illustrate the steps in the operation of the bed machine which you have just described. A. (After examining photographs): Yes, Your Honor, they do.

THE COURT: Have them marked.

Counsel for plaintiff thereupon offered in evidence the nine photographs illustrating the steps in the

operation of the bed machine, as described by the witness, and the photographs are made part of this record, marked, respectively, **Plaintiff's Exhibits Nos. 3-A to 3-I**, inclusive.

Q8 How about the uniformity of the work turned out by these bed machines? How was the work from that point of view? A. The work from the bed machine was not uniform. The results depended a great deal upon the weight and the experience of the operator and whether he was doing his work in the morning or afternoon; getting tired in the afternoon, many times his work was much poorer than it was in the morning.

MR. LYMAN: What did his weight have to do with it?

A. The pressure that is placed upon the bottom of the shoe in the wiping operation depends upon the amount of pressure the operator puts on the foot treadle. Therefore, a heavy operator, with more weight, would add a great deal more pressure than a light operator, with little weight.

Q9 Is the operation of this machine physically exacting? Is it a hard job or not? A. It was very tiring to the operator.

Q10 In addition to the bed machines were any other methods of heel seat lasting in use prior to the Model A? A. In addition to the bed machine heel seats were lasted on a hand method lasting machine and on stitch down staple lasting machines.

Q11 Will you give us, please, a brief description of these two machines, just the essentials? A. In the hand method lasting machine the operator gripped a shoe in both hands. He generally held the toe of his shoe in his right hand and the heel of his shoe in his left hand. He guided the shoe against a bunter, which gave him his edge line, and held it up against a shoe rest. Then he put his foot on the treadle and the machine would push wipers forward over the edge of the shoe and drive one tack at that point through a slot in the wiper. He would then repeat that operation around the heel seat for as many tacks as he wanted. Then he went through the pounding up process, the same as the bed machine.

In the stitch down staple lasting machine he placed the shoe on an anvil that was at a slight angle, and above the edge was a throat. He wiped the edge of the shoe down against the throat and clamped it to the anvil by a foot treadle with the toe of his right foot. With the heel of his right foot he pressed another treadle that

started the mechanism to drive the staple, and he drove one staple on that spot, then removed his foot from the treadle and moved it over for the next staple. The speed depended upon the experience of the operator.

Q12 Were those two methods used to any appreciable extent in lasting heel seats? A. No. The hand lasting method was used mostly on children's work because it was hard to get small sizes into a bed machine; and it was used extensively on turned shoes. However, there were not a whole lot of turned shoes made; the percentage of turned shoes was small compared to the total amount of shoes made. And the same applied to stitch down. A stitch down staple laster was used merely for lasting welt shoes, which was a small percentage of the total amount of shoes.

Q13 Can you tell us the disadvantages inherent in the two machines you have just described? A. The disadvantages were it was a step-by-step process, they were very slow, and the results were not particularly good. The work depended too much on the operator to get good results.

Q14 The operator holds the shoe up to the tacker? A. He holds the shoe up and it depends upon how much he presses up for the wipe-over and to receive the tack.

MR. HAMMETT: That is all at this time.

MR. TOULMIN: Your Honor, I would like to defer my cross-examination until I see the machine he refers to.

THE COURT: Do we understand that these bed machines will be in operation?

MR. TOULMIN: That is one of the things he wants to show.

MR. LYMAN: That will be perfectly satisfactory to us, to defer your cross-examination.

MR. TOULMIN: I think I can do a shorter job.

THE COURT: The witness understands he will be back tomorrow.

Thereupon Mr. Duplessis retired from the witness stand and

Joseph Fausse,

called as a witness on behalf of plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Hammett:

Q1 Please state your name, age and residence. A. My name is Joseph Fausse. I think I will spell that for

you, because it is a very confusing name—F-a-u-s-s-e. I live at Melrose, Massachusetts, 93 Hazeltine Avenue.

Q2 How old are you, Mr. Fausse? A. I am sixty-five years old, sir, today.

Q3 By whom are you employed? A. By the United Shoe Machinery Corporation.

Q4 And how long have you been employed by them? A. Thirty-four years the twelfth of this month.

Q5 What did you do before you went with the United Shoe? A. I was a shoemaker. I started in lasting shoes by hand, both on tack shoes, ply shoes and hand sewed shoes. That was my trade in the first place, and then I worked myself up to be a foreman and assistant superintendent of a shoe factory.

Q6 What positions have you held with the United Shoe? A. Well, when I first started in with the United Shoe it was in the Brockton office, Massachusetts. I went in there as a routine man and a quality man in the shoemaking end, and that meant that we had to take and go out to the different factories, install machines, teach operators, and see that the quality of the work met what the manufacturer wanted. That was our job, to do that, and many times we went in on calls that had nothing to do with machines, only the quality, to help the manufacturers out a little bit. They would get into a jam, or something, and they would ask the shoe people to go up and help them out a little bit.

Q7 And you have been in the operating department and in the research department? A. I am now employed in the research division in the Beverly factory.

Q8 Do you work with lasting machines? A. A good deal of the time.

Q9 What was the first commercial automatic heel seat lasting machine you ever heard of? A. The McFeely machine, which is called now the Model A machine, which was brought out by the United Shoe Machinery Corporation.

Q10 Were you familiar with that Model A machine when it came out? A. Yes. I was transferred from the Brockton office to the Boston office in the lasting and pulling department. That meant that we had to go all over the country to the different offices, visit the office and see how things were going, doing a little quality work, or one thing and another, and I was especially assigned to that job with McFeely in the Tom Plant factory, to see whether or not the United wanted to decide to split the operation from the bed machine,

whether we should have two operations; one for toes and one for heels.

Q11 And the method of doing the heels was this Model A, if I understand you correctly? A. Yes.

MR. HAMMETT: Now, Your Honor, we have a Model A machine in the anteroom. All I want the witness to do is to identify it, so I can offer it in evidence. Perhaps I can ask him—

By Mr. Hammett:

Q12 Have you seen the machine in the exhibit room? A. Yes. You have a Model A, which is painted black. That is the old original McFeely Model A machine.

MR. HAMMETT: That is the only machine that is painted black, so perhaps that will be sufficient identification. We do intend to offer that machine in evidence; perhaps we might as well do it now.

MR. TOULMIN: If Your Honor please, I have not had a chance to inspect the machine to see if I shall make any objection to it.

THE COURT: Of course, you have that right.

MR. TOULMIN: If Your Honor will indulge me I won't delay the proceedings by stopping now.

The Model A machine of plaintiff, so offered in evidence, is made part of this record as **Plaintiff's Exhibit No. 4.**

By Mr. Hammett:

Q13 Do you remember approximately when the Model A machine went out commercially? A. Well, I think it was in the early part of 1916 or thereabouts. I could not say the exact date but I know it was in 1916.

Q14 What was your connection with this Model A machine? Did you install other machines besides the Plant machine? A. When I was sent over to the Plant factory with Ronald McFeely I was out there to study the machine, to find out how good the quality of the work was and to learn to operate the machine, which I did. And then when we started putting the machine out I was the man that was picked out to go to the different territories and introduce the machine and teach our own men in the branch offices to run the machine, and they in turn broke in the operators for the manufacturers.

Q15 Do you remember some places where you put that Model A? A. Yes, several of them. We had a machine in Dr. Posner's in Brooklyn, New York, on

children's turned; we had a machine in Thomas's in Brooklyn on turned shoes; we had machines in Bridesburg, Pennsylvania, on turned shoes, children's; we also had a machine in Bedford Shoe in Carlisle, Pennsylvania —they were all children's shoes. And then we had machines on women's shoes, we had one in Minnehan's in Rochester, one in Krippendorf & Dittman in Cincinnati, and one in Utz & Dunn's. That was in Rochester, New York. And we also sent one of those machines, one of the twelve that was made, over to England in 1921.

Q16 The Plant factory you mentioned, where you first saw the machine, that was the Plant factory in Jamaica Plains; is that what you mean? A. Yes.

Q17 What was your experience as to the commercial operation of this Model A Machine? How did it work? A. From the start of the machine in Plant's, before we went out anywhere commercially, that is, to spread the machines around—we had to be sure that our machine would do the work satisfactorily—and all shoes that were presented to us in the Plant factory we did and did them satisfactorily; in fact, they were all better than anything we could get on the bed machine, more even work. Of course, we can do some shoes on the bed machine that are very nice, but they were not even. We would get one case that would be very nice and the next case would not be so good, because it was all left to the will of the operator to tighten up his shoe into his pad, and his pressure. So that when we started out and went out with the Model A machine from Plant's, every factory that we went into we did better work and more work than they ever expected that we could ever do.

Q18 Were you up at Rochester at Utz & Dunn's, with that machine up there? A. Yes, I was up there, and when they got the machine all set up and got one of our own men so that he could handle the machine then in turn we broke in an operator from Utz & Dunn's, and after we got the operator so that he would go along quite good, Mr. Metzger, of Utz & Dunn's, said to me, "When you go back to Boston I want you to do me a little personal favor. I want you to take and go to Sid Winslow and tell them" —

MR. TOULMIN: —I would like to object. I did not want to interrupt.

THE COURT: That is the thing to do if an objection is to be made.

MR. TOULMIN: I thought he was coming back. I must object to this. I think it is entirely immaterial to the issue here.

THE COURT: Yes. I think the objection should be sustained.

Q19 I will ask the witness what production was obtained on the Model A machine.

MR. TOULMIN: We object. It doesn't make any difference. If the machine worked it produced something, and the amount is not in issue here, I think.

THE COURT: It may have a bearing. That remains to be seen. The witness may answer.

A. On stitch down work we used to do, when there was work to do—understand this; sometimes there was no work in the factory, but when we had plenty of work we could do from eighteen hundred to two thousand pair a day, and we did that day after day.

Q20 That was on children's shoes? A. Yes.

Q21 And on women's? A. On women's it was a little slower, due to the fact that the heavier the shoe the harder it is for the operator to take it from his rack, put them on his spindle, jack his shoe up, and put them back on the rack. That we find in all shoemaking—the larger the shoe, the slower the job is.

Q22 Take the bed machine, what would be an average production in lasting? A. Well, on turned shoes it is 350 to 400 pair a day on the bed machine for heels alone, and if they were doing toes and heels it would be around 240 to 250 pair, possibly. Sometimes it would be a little more or a little less, due to the quality of the work.

Q23 What would it be on the hand method? A. On the hand method on children's, on turns we used to get 500 or 600 pair a day.

Q24 Do you know approximately how many Model A machines were put out? A. There was twelve of them built.

MR. TOULMIN: If Your Honor please, I don't think the witness is qualified to know the records of this company as to the number of machines put out.

THE COURT: Even if he does know, ask him if he does.

Q25 Do you know how many Model A machines were put out? A. Twelve of them put out. I installed eleven of them in this country and one in England.

Q26 You said this Model A machine was developed by Ronald McFeely. Did you know Mr. McFeely personally? A. Yes. I knew him before he went to work on the heel seat laster. He was beyond a doubt one of the greatest inventors we ever had.

MR. TOULMIN: I object, Your Honor.

THE COURT: Objection sustained.

Q27 Is Mr. McFeely living now? A. No; he died in 1917, I believe, 1917 or 1918, I am not sure. I should know; I went to his funeral.

MR. LYMAN: Wouldn't it be interesting to know the history of McFeely, Your Honor?

THE COURT: I don't know that it has any bearing.

MR. LYMAN: It doesn't directly, and we shouldn't press it if—

THE COURT: —It will just incumber the record. He stands on the same basis as any other inventor. I don't think we are interested in that.

MR. LYMAN: We do want on the record, Your Honor, the fact that McFeely was an inventor employed by the United Shoe Machinery Corporation.

THE COURT: That is all right. You may ask that question. The objection went to the witness—

MR. LYMAN: —Characterizing him as the greatest inventor.

THE COURT: Yes. You may ask this other question to show he was an inventor and employed by the United Shoe Machinery Corporation.

MR. HAMMETT: I think that is already on the record.

MR. LYMAN: I don't think it is.

By Mr. Hammett:

Q28 Who was Ronald S. McFeely? A. Ronald S. McFeely was an employee of the United Shoe Machinery Company as an inventor.

Q29 Do you know who Charles A. Hoyt was? A. Yes. Charlie Hoyt was his draftsman and designer.

Q30 Is Mr. Hoyt living? A. No.

Q31 Both Hoyt and McFeely are dead? A. Yes; he died after McFeely, possibly a couple of years.

CROSS-EXAMINATION

By Mr. Toulmin:

XQ1 How many adjustments and of what nature were there on the Model A machine, and what did those adjustments do? A. Well, you have the adjustment to raise your heel posts up for the proper height. You also have the adjustment to close in your wipers, large and small shoes. You also have an adjustment for your pads, and also have a knee motion. You have a pulling in motion. Then you have a holding in motion into the

machine to hold the shoe. When I say "holding in" motion, it is to hold the shoe in the pad while the wipers are doing their wiping in. That is what I mean by "holding in" motion.

XQ2 Now each one of those adjustments was an adjustment made by the operator of the machine, I take it. A. Well, all of those adjustments were figured out, as near as could be figured out at the time, to give us a range of shoes, you understand. Then when we went into a shoe factory we adjusted the machine to cover as near as we could the range of shoes that they were making, and there might have been times when we were running down to a very small shoe, or we might have had a time when we were running up to a very large shoe, when we had to readjust, open or close, according to the sized shoe, now and then to get the tacking in the right place onto the heel seat.

XQ3 And such adjustments were manual adjustments that you would make here and there to get the machine into position to operate so as to last these particular shoes you wanted to last; is that correct? A. Yes. After the adjustments were made then we did not have to bother with it. We just simply locked the adjustment there, put in a shoe, stepped on the treadle, and the machine went.

XQ4 And those adjustments could be made by the operator if he was confronted with a different size of shoe for which the machine was not adjusted; is that true? A. Suppose, for instance, he was doing a woman's shoe and he was doing a size 9 and then he jumped onto a size 4; then there might have to be a little bit of adjustment for the tacking.

XQ5 Were the features of the adjustment on a shoe machine, a heel seat lasting machine such as Model A, the first adjustments that you ever saw on a heel lasting machine? A. The first automatic heel seat lasting machine that I ever saw.

XQ6 I am referring to the adjustments now. Did you ever see any heel seat lasting machine of any sort prior to Model A that had its parts adjusted to fit the particular shoe? A. On bed machines we have a pad that—you know that—when we set up the machine we adjust the closing in and out of the pad, and that is all we do to that machine. The operator on his tacking is controlled by the welt and the size of the shoe, by his hand levers.

XQ7 In the bed lasting machine that you have just referred to is it not a fact that you have wipers in that machine? A. Yes.

XQ8 And don't you adjust the wipers in that machine in order to wipe the particular shoe that you are going to put in the machine? A. No. It is all done by hand with a hand lever that you close and open your pad.

XQ9 I am not talking about the actuation of the wipers, the movement of them. I am talking about the fact that those wipers have to be adjusted to the particular type of shoe that you are working on before you start a run of shoes on that machine. A. That depends on what bed machine you are talking about.

XQ10 Have you ever seen such a machine having such an adjustment of wipers? A. We had Number 6 and Number 7 machine, in which there was an adjustment.

XQ11 And in your Number 6 and 7 machines the wipers were adjusted in advance by moving the wipers bodily to do the wiping, weren't they? A. We got—

THE COURT: —Answer "Yes" or "No."

A. (After XQ11 was read): Yes.

XQ12 What other adjustments were there in the bed lasting machines besides this preliminary adjustment of the wipers? A. The toe post.

XQ13 What is the function of the toe post? A. The function of the toe post is that you take your last from the rack post and drop it into the spindle and then when you get your shoe into the spindle, if you find that your shoe is up a little too high to wipe, then the thing for the operator to do is to take his shoe out of the machine and screw the screw onto the machine to allow more room between the top of the shoe and the wipers.

XQ14 So in the bed laster you had a means of positioning the vertical position of the shoe, didn't you? A. Up and down, yes.

XQ15 Up and down. What other adjustment did you have in the bed laster besides the two we have just discussed? A. Of course, you have to have adjustment on the toe rest.

XQ16 All right. A. We had a toe rest adjustment.

XQ17 What other adjustment did you have in the bed laster? A. Well, we have adjustment to get the pitch of the last sidewise and this way (indicating).

XQ18 What other adjustment did you have besides that? A. Well, you got your adjustment on your

toe and heel to rock your head according to the pitch of your last, and that is about all there is that I know of.

XQ19 Coming back to your Model A machine, which you say was the McFeely machine—Your Honor, I have not had a chance to inspect it yet but I am going to cross-examine up to that point, if I may. Coming back to your Model A machine, do I understand you to say that this machine had both wipers and tackers in it? A. Yes.

XQ20 Have you ever operated the McFeely machine before the tackers were applied to it, with just the wipers? A. I don't quite get just exactly what you mean.

XQ21 I will ask the question again to make it perfectly plain to you. What I want to know is, did you ever see a McFeely machine operated, of the Model A type, with its wipers in position but without the tackers being placed in position? A. No.

XQ22 Can you tell the court whether the wipers act differently when the tackers are in position as contrasted with the method of operation of those wipers in this Model A machine without the tackers? A. Well, not being an expert mechanic on the movement of the machine it would be a rather hard thing for me to answer so everybody could understand to their satisfaction.

XQ23 You go ahead and we will try to understand. A. In the first place, our wipers are made a certain thickness, say for instance a certain size. Then those wipers are connected with a connection that forces the wipers over, and then we adjust the tack blocks to follow the wipers on the end. And there is one place on the back side that you adjust and then after that is done you don't have to bother with your adjusting any more. If you have got a large shoe you just take the two ends of your machine and bring it up for small or for large shoes, and your tacker always goes with your wipers.

XQ24 Do those tackers on these machines change the operation of the wipers in any way? A. Well, if they do, I don't know. You will have to ask somebody that is more mechanical than I am.

XQ25 I thought you knew all about this machine and were an expert on it. A. I did not say I knew all about it.

XQ26 What has been your experience with this machine that you have been talking about? A. As a shoemaker and operator of the machine.

XQ27 As a shoemaker and operator of the machine you certainly know when a good wiping job is done, don't you? A. I think I do.

XQ28 Do you know when a good tacking job is done? A. Yes.

XQ29 Do you see in that machine as you operate it any change in the wiping because of the tacking being done? A. The wiping was just as good with your tacking as it was without.

MR. TOULMIN: That is all.

MR. HAMMETT: That is all.

THE COURT: Then at this point we will recess until two o'clock but this case will go over until ten tomorrow, and I understand we are to meet at Krippendorf-Dittman's.

MR. LYMAN: Yes, Your Honor.

THE COURT: That is the plant on Seventh Street off of Sycamore: is that it?

MR. HAMMETT: Yes, Your Honor.

MR. LYMAN: Mr. Fausse may be excused?

THE COURT: Yes.

MR. TOULMIN: Just a minute, Your Honor. I may want to examine that witness further after I look at the machine.

MR. LYMAN: That was Mr. Duplessis.

MR. TOULMIN: Yes, but I may have another question after I look at that machine.

MR. LYMAN: I don't want to keep him over a day. He is needed in Boston.

THE COURT: We will recess for five minutes. Then you can indicate if you want to ask any questions when we come back.

Thereupon a short recess was taken, after which Mr. Fausse resumed the stand and testified further, as follows:

By Mr. Toulmin:

XQ30 With reference to the Model A machine, of which I understand there is an example out in the anteroom, isn't it a fact that that machine has small springs adjacent the point of connection of the pressers at the outer ends of the heel band, to form a resilient connection? A. In the front part?

XQ31 In the front part. A. Yes.

XQ32 Does that machine have upwiping? A. Yes.

XQ33 What causes the upwiping, do you know? A. Cam motion.

XQ34 Do you know what part of the cam does that? A. The front part of the cam.

XQ35 The front part of the cam, the very first cam contour? A. Yes. You will find there are two rods there; one adjusts the height of the shoe and the other adjusts the amount of upwipe that you want in the machine.

MR. TOULMIN: That is what I want.

Thereupon an adjournment was taken in this cause until 10:00 o'clock in the morning of the following day, Tuesday, January 17, 1939.

MORNING SESSION,

TUESDAY, JANUARY 17, 1939.

Court met at 10:45 o'clock, counsel being present on behalf of both parties.

Thereupon,

Frank C. Biehl,

called as a witness on behalf of plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Hammett:

Q1 Please state your name and residence, Mr. Biehl. A. Frank C. Biehl; 4665 Howard Avenue, Cincinnati, Ohio.

Q2 How old are you, Mr. Biehl? A. Forty-seven years of age.

Q3 What is your present occupation? A. Foreman of the Krippendorf Shoe Company.

Q4 Where is the Krippendorf Company? A. On Seventh—Just Seventh Street is the front entrance.

Q5 In Cincinnati? A. In Cincinnati, yes, sir.

Q6 And you demonstrated to us this morning the lasting of shoes on the bed and Model D machines in your factory, didn't you. A. Yes, sir.

Q7 What has your experience been in the manufacture of shoes, Mr. Biehl? A. Well, I have been making shoes for the past thirty years, and I have been foreman for the last twenty-one years, and I have had a lot of experience in lasting shoes.

Q8 Going back to the two machines that you demonstrated this morning, I wish that you would briefly compare the heel seat lasting operation on the bed machine with the operation as performed on the United Shoe automatic Model D machine from the point of view of a shoemaker and an operator. A. Well, to begin

with, the Number 6 laster, that is the bed laster, and Number 7 the welts, we can do the same job on both machines. With the bed laster or the Model D you can get identically the same kind of work, but we can do about three shoes to one on the Model D against the bed lasting machine, which is the Number 7.

Q9 How about the uniformity of the work? A. Well, the uniformity of the work, on the Model D you are bound to get every one exact; they are bound to be the same as long as your machine is adjusted correct. You can't help from it. The shoes are all regular, the heel seats are flat, whereas on the bed machine there is a variation. It is against the operator's strength; he pulls up on the wheel and if he does not pull as hard on one shoe as he does on another, there is going to be just a little difference in the heel seats.

Q10 So there is a variation on the bed machine? A. Yes, there is a variation on the bed machine.

Q11 How about the necessary qualifications of an operator? Take an inexperienced man, which machine could he operate quickest? A. Well, I should say on Number 6 or 7 laster a man has got to have at least a year's experience, that is, to do toes and seats on a lasting machine; and I can take a man on the Model D and in about ten minutes' time I can go away and leave him and he knows just what has to be done— there is nothing but just to put the shoe on there, just keep it level with the machine.

Q12 What do you think of the Model D, as a shoemaker? A. I have been using the Model D—

MR. TOULMIN: I object, Your Honor.

THE COURT: The objection will be sustained as to the question. Of course it may be reframed to meet the situation. As it is I think the question is objectionable.

MR. TOULMIN: May I just make an observation for a moment? I am not objecting to this testimony, which would probably be rebuttal testimony. This being a court of equity I presume Your Honor will have the testimony taken in a way which will not be quite so formal, but it seems to me we are going far afield to go back and try the case in reverse.

THE COURT: I don't know that that is so, because there are some of the elements of plaintiff's case that I think this testimony meets.

MR. TOULMIN: I don't want to object. I want to make that observation. If it goes too far afield I will have to object, if they continue this.

MR. HAMMETT: You may cross-examine.

Testimony of Frank C. Biehl.

CROSS-EXAMINATION

By Mr. Toulmin:

XQ1 How many bed lasters have you in your plant? A. Nine.

XQ2 They are in operation? A. Yes, sir.

XQ3 In daily operation? A. Yes, sir.

XQ4 Are they used for lasting heels and toes, one or both? A. Seven of them we use for lasting toes only and two for toes and seats.

XQ5 Do you have wipers in these bed lasters? A. Yes, sir.

XQ6 Are those wipers adjustable any way to the particular type of shoe that you are going to put in the bed laster? A. No. We set the wipers and that takes care of the general run of work unless we get an exceptionally large size shoe, and that hasn't happened in the last year or so that I know of. We have some special shoes, say for instance a man's shoe, that we have to adjust the heel pad or the wiper to get our tacks in place, but that hasn't happened in the last year.

XQ7 Do you agree with me, though, if there is any change in the shoe you can adjust the wipers? A. You can bring the wipers in or bring them out, yes; you can do that on the Number 7 laster.

XQ8 And do you have a set screw or something of that sort for adjusting the position of those wipers before you start to move them? Is it a screw or a screw bolt, or what is it? A. There is a bolt on top of the wiper that you have to loosen to bring your wiper in to it.

XQ9 In any one of these bed laster machines, any one of the nine you have, do you have any means for supporting the back of the heel band? A. Just what do you mean?

XQ10 Is there anything connected with the heel band? A. Yes, there is a chain back of the pad. There is a leather pad and there is a chain on there that regulates the width that we can pull it in or out. It is a flexible chain.

XQ11 Can you pull it forward and back slightly? A. No, I don't think you can. I don't know that now. I wouldn't say. I have never had the occasion to do that on the bed machine.

XQ12 You showed us a machine—the first bed laster you showed us this morning, you recall that, do you? A. Yes, sir.

XQ13 You remember there was one just behind you as you stood looking at the machine. I took you over

to it, or you joined me. It did have a connection at the back of the heel band, did it not? A. The one I was working on had the same thing. The only difference between them, it is just a screw on there that we can put tension on that springs the carriage back and forth, because when the man kicks that with his knee automatically the carriage goes back. That is what you saw back there, that screw.

XQ14 Can you adjust the outer end of the heel band, which I have here in my hands, inwardly or outwardly by any means? A. Yes, sir.

XQ15 Is that connection a stiff connection, or does it have a spring on it? A. I don't know that.

XQ16 When you turn the handle it pushes the end in or out, according to which way you push it? A. It works on a screw. When you turn it to the right you are closing it up.

XQ17 Do you know whether there is any give in that connection that you adjust on the ends of the heel bands? A. No, I do not.

XQ18 How long have you had these bed lasters in your plant? A. I can't answer that, how long they have been in this plant.

XQ19 How long to your knowledge have they been in this plant? You have been there a good many years. A. No, I have been there the last five years with Krippendorf. I was formerly with the Selby Shoe Company in Ironton, Ohio.

XQ20 Tell me about the Krippendorf. They have been there the five years you have been there? A. Yes, sir.

XQ21 Did the Selby Shoe Company have any bed lasters like that? A. Identically the same.

XQ22 How long were you with the Selby Company? A. Three and a half years.

XQ23 And did they have them all during that period of three and a half years? A. Yes, sir.

XQ24 How many did they have? A. Offhand I can't recall.

XQ25 Just approximately? A. Fifteen.

XQ26 Were they in use? A. Yes, sir.

XQ27 Daily use? A. Yes, sir.

XQ28 What type of shoe did you use the bed laster on? A. On the welt constructed. That is the only shoe that we use the bed laster on now for heels and toes; and the machine that we last the toes only on is the UCO machine.

MR. LYMAN: How do you spell UCO, please? A. U-C-O.

XQ29 Why don't you use the welt shoe and fabricate that on the Model D machine that we saw by the window? A. There is a difference in construction of the welt shoe. It has a heavy upper on it. We can do that but there is a possibility of having damage. The damages are too great.

XQ30 It would not be a successful job, would it? A. No, sir, not on the heel seat. We can do it, yes, but there is a danger of damaging too many shoes on the Model D with the welt constructed shoe. I have had that experience.

XQ31 Let me ask you one more question in connection with this shoe that you are making on the Model D. Can that be made on the bed laster? A. On the heel seat? You mean last the heel seat?

XQ32 Yes. A. Yes, sir, it can.

MR. TOULMIN: That is all with the witness.

THE COURT: While this witness is on the stand I wonder if both sides would not want to get something in the record to have him describe the difference between the regular shoe and the welt.

MR. LYMAN: Yes.

THE COURT: The welt construction.

MR. LYMAN: Yes.

MR. TOULMIN: The witness might just answer that one question.

THE COURT: I would rather it be put by counsel.

REDIRECT-EXAMINATION

By Mr. Hammett:

RDQ1 Mr. Biehl, will you please explain the difference in construction between the shoes that you have been talking about, namely, the welt, and the McKay? A. The welt shoe is constructed, it has a heavier insole and it is made with a channel on the insole where the shoe is sewed. The upper is stapled to the insole and it is sewed from this angle (indicating), it goes through the channel, where on the UCO method the shoe is sewed through the insole, comes through the insole onto the outsole.

RDQ2 That is not perhaps as clear—

THE COURT: —In one the stitches are covered by the channel of the sole. They both have a channel, the welt and the UCO shoe.

A. Both have a channel but the UCO shoe is sewed in the channel where the welt shoe is sewed—if I had a shoe here we could demonstrate that.

RDQ3 Well, I think we have got a shoe. A. The insole is much lighter in the UCO method.

MR. TOULMIN: Might I suggest if we have a shoe made each way we might put them in evidence.

THE COURT: I am just looking a little bit ahead for the benefit of the Court of Appeals. I would just like to make the record complete.

MR. LYMAN: Do you, yourself, understand, Your Honor, what the welt shoe is?

THE COURT: Yes. I am just looking a little bit ahead. (After counsel for both parties confer privately with the court): All I wanted to do was to have the record full and complete. You can do it later. I thought this was a convenient witness.

MR. HAMMETT: That is all.

Thereupon Mr. Biehl retired from the witness stand.

MR. HAMMETT: Call Mr. Hancock.

MR. TOULMIN: We have a witness we have not cross-examined yet.

MR. HAMMETT: The reason for calling this witness is he has done us the favor of coming from Stix-Wolf and we want to get him back as soon as possible.

Thereupon,

Edward B. Hancock,

called as a witness on behalf of plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Hammett:

Q1 Please give us your name and residence. A. Edward B. Hancock; 3551 Wabash Avenue.

Q2 What town? A. Cincinnati.

Q3 How old are you, Mr. Hancock? A. Forty-three.

Q4 What is your position, please? A. Superintendent for Stix & Wolf Company.

Q5 Where is Stix & Wolf Company? A. Park and Floral Avenue, Norwood.

Q6 Ohio? A. Ohio.

Q7 What has been your experience in the manufacture of shoes, Mr. Hancock? A. You mean my experience straight through?

Testimony of Edward B. Hancock.

Q8 Your background, yes, sir. A. Well, I started as a boy of thirteen and started out in the welt room, working in the welt room, and later became turn lasting foreman, welt lasting foreman, finishing room foreman—practically foreman of all the departments with the exception of the fitting room, and was made a superintendent for the Cincinnati Shoe Company and later a general superintendent for the Cincinnati Shoe Company, and then as superintendent of the L. V. Marks Company and am now with the Stix & Wolf Company as superintendent.

Q9 Over how long a period has this experience extended? A. From thirteen to forty-three—that is thirty years.

Q10 Will you please explain to us as a practical shoemaker the importance of the heel seat lasting operation? A. Well, that could be explained in a few words. My explanation for the heel seat laster would be uniformity. In other words, in the past of course we started out lasting shoes by hand, lasting seats. Then the "niggerhead" was developed and we lasted seats on the "niggerhead."

Q11 Let me interrupt. The "niggerhead" is also known as the hand method lasting machine, is it? Is that another name for the "niggerhead"? A. The hand method would be years ago, when we would last a shoe just by hand. We would take tacks in our mouth and—you know; but the "niggerhead" is a machine.

Q12 That is just another name for the machine which has been called a hand lasting machine. I think we got a little off the track. What I think you are doing is describing the various methods of lasting heel seats. A. Of course, the latest development is the heel seat laster which, as I said before, gives us uniform seats where we haven't had it in the past.

Q13 Where was the first automatic heel seat laster you ever came across? A. Cincinnati Shoe Company, about eight years ago.

Q14 What was that machine? A. That was the heel seat lasting machine, automatic heel seat lasting machine.

Q15 Put out by what company? A. United Shoe Machinery.

Q16 Considering the heel seat lasting operation generally as an operation, why is it important to have a good heel seat on a shoe? A. Well, it is necessary to have a good heel seat so that you can put your heels on a shoe

properly. Without a good heel seat you can't get a good heeled shoe.

Q17 Suppose you have, for example, a wood heel; if the seat did not fit it could you make the heel fit the seat? A. You can't conform wood to leather.

Q18 So the leather must be made to fit the wood? A. Yes.

Q19 You have mentioned this first automatic machine you saw, this United Shoe laster. What has been your personal experience with that machine? A. I just don't understand what you mean.

Q20 You have personally had under your charge and have operated, no doubt, this automatic laster. A. That is right.

Q21 I wondered what your experience had been with it. What has it done for you? A. Well, of course, as I explained before, it gave us uniform seats, but one reason I always liked the machine was the fact that when I was superintendent in country factories we could take a boy and put him on this machine and I will say in two days he was an efficient operator, where formerly, when we would break in a man on the bed laster, to give us seats it would take much longer.

Q22 What production would you say you can get on the Model D automatic laster? A. I have lasted on that machine, that is, lasted good shoes, and I have gotten 1200 pair out of them.

Q23 In what period of time? A. Well, in nine hours; that is when we were working nine hours at that time.

Q24 What could you do doing heel seats on a bed machine in a like period? A. Just lasting seats on a bed machine— I have done that sometimes when we just had this one machine and it would be broken down —I have never lasted much over between five and six hundred pair.

Q25 Do you regard the automatic heel seat laster as an important advance in this art?

MR. TOULMIN: We object, Your Honor.

THE COURT: Of course, that probably is a question for the court. He may tell, of course, what the one does over the other, uniformity of operation, and so on. That of course speaks for itself.

MR. LYMAN: I don't want to force the question, Your Honor but don't you think it would be of assistance to the court, what a factory man thinks of the machine?

THE COURT: No. I said he may describe—it is just simply a question for the court, I would say.

MR. HAMMETT: Would it be proper to ask him how he thinks this machine compares with other machines within his personal experience?

THE COURT: I think he may compare the machine with other machines, yes. There is no objection to that.

By Mr. Hammett:

Q26 I would like to ask you how you think the Model D heel seat laster compares with other shoe machines.

MR. LYMAN: The bed machine or other available ones.

MR. TOULMIN: I object. That calls for an opinion. He may ask him for the proper facts.

THE COURT: He may ask, of course, here about the simplicity of the Model D over the bed laster and the results. And if you want to talk about the experience you may do that too. I think he may deseribe his own experience. That, of course, goes to the weight.

MR. HAMMETT: I think he has already done that.

MR. TOULMIN: He has done that.

MR. LYMAN: I suppose he has covered those things, Your Honor.

THE COURT: He has testified to the simplicity of operation, that he could make an operator of a country boy in two days, as against the other it would take a long time, and twelve hundred pairs in nine hours' time as against five or six hundred by the other.

MR. LYMAN: I think that is probably sufficient basis for a conclusion.

CROSS-EXAMINATION

By Mr. Toulmin:

XQ1 You have had experience with bed lasters, have you, Mr. Hancock? A. Yes, sir; I have broken them in.

XQ2 Over how many years has that experience extended? A. I would say I have been an executive over that department for probably fifteen years.

XQ3 And can you tell the court whether the work done under your direction on those bed lasters was satisfactory or unsatisfactory? A. It was satisfactory but not as uniform as we can get it on the seat laster. It was satisfactory because we did not know any different.

XQ4 And the shoes were made and sold, were they? A. Oh, yes.

XQ5 A great many hundreds of thousands, were they not, during that period? A. I expect there was, yes, sir.

XQ6 Can you call attention specifically to any complaints that were received from shoes sent out when manufactured on bed lasters by the companies you were connected with? A. We at that time had more returned shoes due to the fact the heels had kicked under, the heels had come loose; more so than now.

XQ7 Weren't the heels put on by a separate machine than the bed laster? A. That is right.

XQ8 How many bed lasters did you have, during that period, under your jurisdiction? A. I don't believe I can answer that.

XQ9 Just approximately. I just want to know whether it was one or two machines or were there a large number of machines in these plants? A. I was general superintendent over two plants and in one plant we had, I would say, only as a rough guess—

XQ10 —Yes, just a rough guess. A. Rough guess, probably twelve bed lasters.

XQ11 In one plant? A. Yes.

XQ12 How many in the other plant, the second of the two plants? A. About the same. These are just guesses.

XQ13 In the present plant of which you are superintendent how many bed lasters have you? A. We are now operating four.

XQ14 They are in daily production? A. Daily production, toes only, no seats.

XQ15 They are still operating to your satisfaction? A. Lasting toes.

XQ16 But they are operating to your satisfaction, aren't they? A. Yes.

THE COURT: We want to clarify that, that four bed lasters are being used only for toe lasting, not heels. A. Not heel seats, that is right.

THE COURT: And this machine in issue is a heel seat laster.

MR. TOULMIN: I am going to ask him another question to tie this together, Your Honor.

THE COURT: All right.

By Mr. Toulmin:

XQ17 Now, Mr. Hancock, during this fifteen years' experience were the bed lasters used for lasting heels,

that you had under your jurisdiction? A. Up to the last eight years, when we lasted with the seat laster.

XQ18 But prior to that time they were used for lasting heels; is that correct? A. That is right.

XQ19 How many heel seat lasters of the United have you? A. We have two; one in operation.

XQ20 The other is not in operation? A. No; it is a spare machine.

MR. TOULMIN: That is all, Your Honor.

MR. HAMMETT: No more, Your Honor.

Thereupon Mr. Hancock retired from the witness stand and

Rene E. Duplessis

recalled on behalf of plaintiff, resumed the stand and testified further, as follows:

THE COURT: He is for cross-examination.

MR. LYMAN: For cross-examination, and this witness can describe the welt and McKay construction.

MR. TOULMIN: Ask him that question right now.

By Mr. Hammett:

Q15 Mr. Duplessis, I wonder if you will explain for the purposes of the record the construction of the welt shoe and the McKay. A. Well, in a welt shoe, Your Honor, the insole has an upstanding rib on the bottom. The other side of the insole is placed against the last and fastened in place by a fastening, such as tacks. The upper is placed around the last—that is, the center of the upper, and then it is pulled over and fastened with tacks from the pull-over machine. Then it is lasted. The heel portion of it is lasted right over flat, the same as all our other shoes, like the McKay and the cemented shoes, shoes of that type outside the stitch-down. That inward flange is fastened by tacks and held in place. The seat lasting is performed on another machine and it is only lasted to the upstanding rib. The part near the fastening standing up the same as the ribs, that is lasted around the sides and is lasted on the bed machine; the toe the same way. And that is fastened by a wire, two tacks, one at each end of a wire. From that point the shoe is sent to a machine that trims the surplus stock above the fastenings, and then a welt is fastened around it. The welt is brought against the rib in the welting machine and a curved needle goes in and fastens

that welt through the rib all around from the heel breast on one side, around from the toe end of the shoe back to the heel breast. The shoe is then trimmed again to a point as near the stitches as is consistent with the holding of the stitches. The bottom is filled with a filler, cork or plaster filler of some kind. Then the outsole is placed on the shoe, on the bottom, and covers the whole bottom, heel portion and all. I am just describing the common welt shoe.

THE COURT: I understand.

A. There are variations from this. Then after the outsole is placed on the bottom of the shoe, the shoe goes to the outsole stitching machine and a thread is stitched all through the outsole and the welt edge as far as the welt goes. Then from that point on the shoe is finished the same as any other shoe, nailing, and so forth.

In the McKay shoe there are several types, but the old type of McKay shoe was to assemble the shoe the same as a welt shoe, except the insole is perfectly flat, there is no upstanding rib to fasten to, and the surplus margin of the stock, in the lasting operation at the heel seat and toe, is lasted flat over the bottom. The shoe is then roughed out and trimmed up the best it can be, and sometimes pounded flat as much as possible; then the outsole is placed on, and in most cases in a McKay shoe the stitching is done right through. The outsole may be channelled on the outsole and stitched outside and then stitched through the outside lining, insole and all, and then they trim that flap down and cover those stitches, so it won't show on the inside; they put a sock lining on the inside.

We also have a shoe made similar to that in common use in women's work, and that is a cemented shoe, where they don't use the tacks and they don't stitch it. They just fasten the outsole on, after laying all the stock over the bottom of the insole, and they put a cemented sole on it and then trim it up, finish it up.

MR. LYMAN: I wonder if Your Honor would care to see these (indicating booklet).

THE COURT: I understand.

MR. LYMAN: (Handing photographs to the court): They are pictures of different types at different stages.

THE COURT: I will look at them. Any further questions on direct?

By Mr. Hammett:

Q16 Mr. Duplessis, do you take the last out before you sew on a McKay shoe? A. Oh, yes, we have to.

Testimony of Rene E. Duplessis (Recalled).

CROSS-EXAMINATION

By Mr. Toulmin:

XQ1 As I understand it, you are employed by the United Shoe; is that correct? A. Yes, sir.

XQ2 In what capacity? A. I am a machine designer.

XQ3 And you testified yesterday about bed lasters; is that correct? A. Yes, sir.

XQ4 Are bed lasters still being made and sold by the United Shoe? A. To my knowledge they are.

XQ5 What are those bed lasters sold for, for lasting the heels or toes or both? A. Put out by the company as a toe and heel laster.

XQ6 Do these lasters, these bed lasters that you are referring to have any means of adjusting the wipers prior to actuating the wipers across the shoe? A. The bed lasters put out today have a binding screw at their outer ends and those screws engage a slot of approximately a half inch in length, which permits the adjustment of the wipers at their pivot point.

XQ7 And that is a predetermined adjustment, depending upon the size of the shoe? A. I would not say depending upon the size of the shoe so much as whether they are doing women's or men's shoes. The ordinary run, they probably would not touch them.

XQ8 Dependent on the size of the shoe you make that adjustment; is that right? A. I should judge.

XQ9 How long has that adjustment been on that machine, to your knowledge? A. I cannot definitely say, but I should judge somewhere around 1915 or 1916.

XQ10 Tell me, do these bed lasters have heel bands on them? A. Yes, sir.

XQ11 And how are those heel bands supported in the machine? A. The heel band at its rear end is supported in a stirrup that reaches under the heel band and turns up on its inner edge, and at the two outer ends they are supported by stirrups that can be adjusted up and down to place the heel band as close to the wipers as possible. These stirrups are supported on what we call chain arms, and these chain arms in turn are actuated in the operation of the machine by a slide. This slide pushes them inwardly toward the shoe by a spring.

XQ12 Is this slide adapted to push the heel down fore and aft of the machine, as well as to push the ends of the heel band laterally in the machine? A. This

slide will only push the chain arms fore and aft of the machine. It will not move the heel band. The heel band is fixed in the machine and it has no forward motion in its operation. These chain arms are pivoted approximately in the center on the slide, and the end of the chain arm nearest the band is fastened by a chain which goes around the heel band. The outer ends of these two chain arms are fastened by springs to the frame of the heel band and as the slide moves forwardly of the shoe to close the heel band these springs will yield, permitting the chain arms to pivot about the central fastening on the slide.

XQ13 Have you ever seen any bed laster with means attached to the back of the band for moving the band slightly fore and aft of the machine? A. I have.

XQ14 And how long ago did you see such a construction? A. Well, we made such a construction in 1910 or 1911.

XQ15 And in these bed lasters there is means consisting of some sort of a plunger with a screw on the end of it to adjust, or some adjusting mechanism, to push the ends of the heel band in and out, as I demonstrate by this heel band in my hand? A. Yes, sir, to locate them in and out.

XQ16 To fit the shoe? A. Somewhat.

XQ17 Do you know of any of these bed lasters that the United Shoe has had to take back? A. I don't know of any machine that the United Shoe has had to take back, bed lasters or otherwise.

MR. TOULMIN: That is all with the witness.

MR. HAMMETT: That is all.

Thereupon Mr. Duplessis retired from the witness stand and

Augustus D. Willhauck

called as a witness on behalf of plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Hammett:

Q1 Please state your name and residence. A. Augustus D. Willhauck, Windsor Road, Stoneham, Massachusetts.

Q2 How old are you, Mr. Willhauck? A. Forty-six years old.

Testimony of Augustus D. Willhauck.

Q3 What is your present position? A. Designer of the United Shoe Machinery Corporation at Beverly, designer of machines for the manufacturing of shoes.

Q4 How long have you been with the United Shoe? A. Approximately twenty-two years.

Q5 Are you familiar wth the United automatic heel seat lasters? A. Yes.

MR. HAMMET: I think this would be a good time to have the witness explain the manufacture of a shoe with particular reference to the heel seat lasting operation, Your Honor. We have some exhibits here which I think will be very helpful for that purpose, and I am going to turn them over to the witness and ask him the question.

THE COURT: Have you those exhibits separately identified?

MR. HAMMETT: Not yet, Your Honor.

THE COURT: We will take a recess and you can get them tagged.

Thereupon a short recess was taken, during which the various portions of a shoe in process of manufacture were marked for the purpose of identification Plaintiff's Exhibits Nos. 5-A to 5-I, inclusive. Mr. Willhauck resumed the stand after the recess and the trial proceeded as follows:

By Mr. Hammett:

Q6 I will ask you, Mr. Willhauck, if you will explain the various steps in the manufacture of a shoe, particularly with reference to the heel seat lasting operations, using these exhibits. First I will ask you to identify these shoe parts which have been marked. Do they illustrate the steps in the manufacture of a shoe? A. They do.

Counsel for plaintiff thereupon offered in evidence the parts referred to, and the same are made part of this record as **Plaintiff's Exhibits Nos. 5-A to 5-I**, inclusive.

A. In the manufacture of a shoe, first you take this last, 5-A. The next thing that is done is we will have an inner sole with the necessary pieces upon it. That will be placed on that last and fastened to it (demonstrating).

Q7 What is the exhibit number? A. 5-B. It will be held on the bottom of that last by tacks which are

driven through the insole into your last through these holes. After we have reached that stage it is necessary to get a counter, which is 5-C and your assembled upper, 5-D. Exhibit 5-C will be placed in the assembled upper.

THE COURT: Do you want to identify those as you go along and say what they are? I mean for the record.

A. That is a counter (indicating).

THE COURT: That is what I mean. Say what you do with the counter and upper as you go along.

A. That counter is placed in the upper somewhat in that fashion (demonstrating).

Q8 And where have you put the counter, Mr. Willhauck? A. Between the doubler and the lining in this case, which is a leather portion inside of the upper and the lining, and the outer part, material, is the upper. We then have that last and insole—

Q9 —Let us have the exhibit numbers as you go along. A. 5-A is the last, 5-B is the insole, 5-C is that counter, and 5-D is the upper. Now we take 5-C and 5-D, the counter and the upper, and we place in them the last, 5-A, and the insole, 5-B, which is tacked to the last. We place that inside in that manner (demonstrating), send it to an assembling machine, which will position the heel portion of this shoe against the back of the last and down on the insole. The shoe then will be in the condition as exhibited in 5-E. As regards the heel end, you will have an assembling tack here; you will have these two anchor tacks, which is to anchor the doubler, counter, lining and upper to the insole and the section of the heel seat. From there it goes to the pulling over machine. The pulling over machines pulls this forward—

MR. LYMAN: —Pulls what forward?

A. Pulls the upper forward on the last and inserts these five tacks.

MR. TOULMIN: Witness referring to the toe of the shoe.

A. The toe of the shoe, and it is held in that position as now shown on 5-E. That shoe then has the succeeding operations. Now on this shoe here—

MR. LYMAN: —Exhibit what?

A. Exhibit 5-F, they have cemented the toe down to the insole. They have probably done that on a hand method laster around here (indicating), which is inserting these tacks.

Q10 When you say "around here" what do you mean? A. I am pointing the distance from approxi-

mately here on the toe end of your last down to here (indicating) on each side of your last.

Q11 Is that ever called the "shank"? A. In the shank, yes, and down to the breast of the heels. Where the breast of the heel would come would probably be in there (indicating). That would be so with the type of shoe and the heels being used. In that condition there this exhibit would be taken to the heel seat lasting machine, and that is done for the reason that we want to last this heel seat, we want to make every particle of it conform to the wood of the last, and we want to rub down this portion here, which you see is in a very loose condition; smoothly and evenly down to the bottom of that last, or rather, top of the insole, which is resting on the bottom of the last. The reason for that is this, that after this Exhibit 5-H is placed upon here, we are then going to put the heel on there, which is 5-I. Well, to do that, we also must take into consideration the shape of Exhibit 5-I. We can't alter the shape on the heel; that is wood, and if we try to alter it we are going to ruin it. Now, that has a definite relationship to the size of the shoe on which it is going, and we must conform all this material down so that when we get through and have placed Exhbit 5-H on it—

MR. LYMAN: —5-H being what?

A. The outsole, and then the heel on top of that, we have a very nice fit around this particular portion of this heel which is going to rest on the upper leather. We also want to weld a fine line around it for the same reason, and we go to work and we put that into the heel seat laster to obtain those results. After the heel seat laster has lasted it, as shown on Exhibit 5-G, it will come from the heel seat laster in that condition there (indicating). We have lasted over those ears or corners, we have placed it down solidly against the upper surface of the insole, we have fastened it there, we have got it down against the last, the wood of the last, in here, on the breast, on the back seam, and in the corners. The next operation is that this Exhibit 5-H, the outsole, will be placed on the bottom of that shoe (demonstrating). I am trying to get it in somewhat the proper shape but I can't. Then you will notice that the rear portion of the sole has been scarred or cut away here, and also on that edge there, and it will set aproximately into this opening when it is really finished.

Q12 What opening? A. The opening that is shown between the edges of this lasted-over margin and the insole.

Q13 At what end of the shoe? A. At the rear end of the shoe. Now, if we take this heel and place it on there (demonstrating) you will notice, holding it only by hand, that you have a well-defined line and a proper fit, no wrinkles, no bulges, the upper is to the last. There is a good fit. There may be some trimming to do in this particular area (indicating) because we haven't positioned this accurately. You can't under these conditions. And that is the operation of the heel seat laster, prepare it to receive those parts, receive them properly.

MR. HAMMETT: Your Honor, I think it would be helpful at this time to offer in evidence that book Mr. Lyman showed you. It does not contain any advertising matter. Mr. Toulmin would like to see it—in fact, he has already seen it, I think. Suppose I offer it in evidence subject to objection.

MR. TOULMIN: Give me a chance to look at it.

The book so offered in evidence, entitled "How Modern Shoes Are Made", is made part of this record as **Plaintiff's Exhibit No. 6.**

MR. HAMMETT: At this point, Your Honor, we intend to have this witness describe the mechanical construction of the machines in question. We have not brought them into the court room for fear of damaging the floor. I wonder if we could ask you to go out there.

THE COURT: Wouldn't it be better if we all adjourned out there and let him describe it? We will move the court reporter out there. Wouldn't it be better if we did that?

MR. HAMMETT: Yes, sir, I think that would be fine.

Thereupon the court, counsel and witness adjourned to the anteroom where two machines were located, and the trial proceeded as follows:

By Mr. Hammett:

Q14 Are you familiar with this machine Plaintiff's Exhibit 4? A. This is the Model A machine. We have a base, column, head, means for running the cam, operating the tacker bar. This is your main cam. This is the means for applying power to the main cam through here, and so forth. We have here what we call the jack post. In that is a wheel spindle. This is a last rest. This member is a toe rest. Here we have a means, when power is applied, of drawing that jack inwardly into the machine. That power is applied through this lever here. That spring moves the shaft. That guide out here

has adjustments on, and after we present it to the machine manually and the clutch is started that will draw this member with the shoe on it into the machine. In here we have a heel band. That heel band is supported at the front by these two members here, clips, and two wing nuts, one on either side, of course. In the rear it is supported by this wing nut here. The band has hooked to it a slide member which is—(Witness removes band from the machine). That is the band and that is the clip (indicating) I am referring to, riveted to the band. Those ears project around the body of the screw. That screw is then turned up in the machine. You will notice these supports all have upward movement. The clips are set in here.

MR. HAMMETT: Pointing to the supports in front end of band.

A. When that is fastened it is against the body, so the cylindrical body of that pressure member here has that much movement.

By Mr. Hammett:

Q15 By "pressure member there", for the purpose of the record what pressure member do you mean? A. On the forward end of the pad.

Q16 "Pad" means the same as "band"? A. Yes. That is my error. I shouldn't do it. Now, the support in the rear has the same amount of movement.

Q17 What kind of movement? What direction? A. Upwardly from a stationary position. That handle here is a means of adjusting this pressure mechanism here and the carriage or band forwardly or backwardly in the machine.

THE COURT: In every operation does this move, or just for different sizes?

A. That is only moved for various sizes and any little variations or inequalities in lasting margins; we must act to get it proper. Here we have the wipers. You will see them right in here. Those have links which extend back and are connected to this block here on each side. That block has a racked pinion, certain levers and another rack in back on your main slide which, when it is pushed forward, will swing that front end of these cams inwardly over your shoe. These members here are means of adjusting those levers. If you get down, you may see them as I raise that up.

THE COURT: The adjusting is to cover the difference in sizes.

A. The range in sizes.

THE COURT: And the adjustment takes care of the tacking?

A. The adjustment is also used there. In lasting the shoe you have a little variation in your lasting margin. Some shoes may have a short lasting margin, and, above all, when we drive those tacks, as in the exhibit you will see with the doubler, the counter and the lining, we must fasten them all. Now, if a shoe is properly cut, the chances are if the patterns are right those will come somewhat even. If the upper is back from the inner edge of the counter we must catch the upper also; therefore we will have to sacrifice a little here (indicating) in getting the tack through the inner edge of the counter, or we wouldn't fasten the three members together. That can be adjusted to compensate for that also.

Q18 In answer to His Honor's question you said it will adjust the wipers to the position of the tackers. How will it adjust the wipers to the position of the tackers? A. Because these tacking members here, you will notice that that tacking member extends backwardly of this screw. That screw is in this one here. That distance is predetermined and then it is set. There is no further adjustment of that necessary. The tackers will be taken care of because the tackers are moved with the wiper.

THE COURT: The tackers are just ahead of the wiper. A. Predetermined, a fixed distance.

THE COURT: All right.

A. These are your corner tackers and this is your rear tacker. The tacks are fed to that unit through these grooves here and, not going into a great amount of detail, are picked off by this separator, which goes back, picks them up and drops them all into a feeding plate and then down into the machine, and they are ready to be driven at the time the shoe has been wiped over and at the proper time of driving, which is taken care of by the cam and head. This cam, you will notice if you step on this side, Your Honor, has a drop-off there. Now as that machine rotates around power members, rotates in this direction (indicating), when that gets to the point, this driving plate is allowed to drop off and the timed relationship between this and the wiping movements is such that every member of the machine is at rest, in its proper position, excepting this particular portion here to drive your tacks and then come back on the rotation of your machine and load your springs for driving again. In here we have your hold-down. That is what we place the insole in, when we put a shoe into the machine manu-

ally. Now in that main cam you will notice there is a track right here on the face that has—

Q19—Pointing to front face of cam? A. Yes.

Q20 Or what are you pointing to? A. Pointing to the front face of the cam, and that member has a cut there and another out here. That controls the amount of movement that will move upwardly when your second wipe is to take place. Now, to get the motion of that hold-down, we have over on this side this lever with a cam on it, which is set into this cut here, whatever amount of depression you wish to have. This here is to control that amount. In other words, if we leave that in that position, this roll is going to stay right where it is. If we loosen it up and let this go rearwardly, it is going deeper into that cut, and when it comes forward it is going to depress the hold-down much further than it is set now. This is the adjustment for controlling the amount of throw and amount of rearward motion in this machine.

THE COURT: This hold-down; the principal object is just to pull that heel or shoe right into place so there will be no movement—A.—No, Your Honor. One of the principles of that, or the principle of that hold-down is this, that it will position that shoe at the proper level to get your proper wiping condition on those materials. In other words, you couldn't put this shoe in and have it so high that your wipers would go over there (indicating.)

THE COURT: I get your point. A. It determines your first wiping level and your second, when you wipe over that heel seat. Now this other track here (indicating), which is the center track in the cam is the one that imparts the forward motion to your wiper, and it also, through the second lever, imparts motion to this member, which gives you the inward motion at the forward end of the wipers. On both sides of the wiper there is a slide. There is a cam on the slide and that slide extends forward on carriage grooves in which the wipers are allowed to slide in that way. On the side there are racks which will engage the pinion and impart the motion here. Now on the back of this cam we have another track. That track operates the band closing and pressure applying mechanisms. This lever, when the cam rotates, is forced in that direction (indicating). It is connected here through a shaft that has a pinion cut on here and extends into the center of the machine, and that is also geared and the rack is set on top of it. There is one center rack and then two side racks with an

equalizer in it, and then that operates on these bell crank levers here. Those are the racks there, and as these are drawn rearwardly the shank swings these levers rearwardly, closing with an even pressure the opening at the rear of that band. That is, outside of going into a brake cam, a brake operating cam covered up in here which will oscillate, roughly an outline of what that machine attempts to do.

In that same machine what you really do, you take a last, you place it on that spindle or last pin. This is for the purpose of leveling the heel seat; this adjustment here allows it to be leveled that way.

Q21 Did you describe these corner pressing members? A. No. I have not gone through that yet. I am just going through the operation roughly, to give the sequence of operation.

THE COURT: What you just referred to there is covered specifically by one of the claims, is it?

MR. HAMMETT: Yes, Your Honor.

MR. LYMAN: This one doesn't have the Hoyt.

MR. HAMMETT: No, but it is the corner pressure members of that machine (indicating) as distinguished from this machine (indicating other machine) that are covered in the Hoyt patent.

THE COURT: The Hoyt patent is not covered in this machine (indicating Exhibit 4) but it is included in this one (indicating Model D).

MR. HAMMETT: Yes, sir.

THE COURT: What do you call that?

MR. HAMMETT: It is not in yet.

THE COURT: This (indicating Exhibit 4) is Model A.

MR. HAMMETT: Yes, sir.

A. You place that last on the last pin, you present your shoe manually to the machine, and as he does he will bring it up under that shoe last by pressing that lever.

MR. HAMMETT: Witness steps on left treadle.

A. In that position (demonstrating). After the heel is observed to see if the shoe is in proper alignment, he will step on this right treadle (demonstrating). He will probably be in a position about like that (demonstrating). When he steps on that treadle the machine starts to operate. The first thing that will happen on that, this member should draw into the machine—in other words, drawing it away from me and pulling it into the machine.

By Mr. Hammett:

Q22 Pulling what into the machine? A. The shoe on the last. That, through these members here, is applying power through the shaft and on this member which engages that shaft. The next step, your band and shoe last—you will notice the position of this cam on this side. It is about to come in contact with the raised portion of that cam surface, and this one here is put in contact also. Now that means that your band is going to start to close and your shoe rest is going to push your shoe down through the band. That would be the next function of that.

Q23 Do you use the terms "shoe rest" and "pull-down" as synonymous? A. Simultaneously (demonstrating).

THE COURT: I get it.

A. It is very fast even when it is slow because they are close together. Now you are getting your first over-wipe, and in your first over-wipe the shoe is a little higher than is required to get a good lasting job. This will gradually break over that material that is standing there (demonstrating). Now you are retracting. This shoe rest should have come up a little at that particular time. You will notice there was another slight dip in this cam that should have put more pressure on the heel band prior to the wipers coming on. I believe it did. It is slight; you can't see it. The shoe rest will let that come up and you are getting ready for the second wipe. Now you are retracting. Now you are going into your far corner (demonstrating). Now you will notice the angle of drive on these wipes. The idea of that is to assist in dragging that material in toward the center line of the shoe, because the attachment will be at that angle. The machine from then on will simply release the shoe and last—of course, we haven't driven any tacks—and get the machine ready for an operation on the next shoe. You will notice that the drivers are coming back. Now this in-drawing is beginning to release, the band is beginning to release, and the shoe will come out. We haven't been able to get the proper working pressure and we could not turn the heel; therefore, that is not an exact duplication of what the machine will do.

Q24 That completes your explanation, does it? A. Yes.

Q25 I want you to tell us how the pressure is applied to the corners of the leather heel. A. In this machine here, and it is very essential that we get it, is a

pressure in this particular area here (indicating). You will notice that that is very soft; we want to get it right down against the wood. In this machine here that is applied through a flat spring, with two pressure members upon it. I will take this out again so you can see it. You will notice this member here. Now, if you wish, I can take that right out of the machine so you can see it.

THE COURT: Not unless you want to. I can see it.

MR. TOULMIN: It is shown in the McFeely patent, Your Honor, just exactly.

A. On that flat spring you will see these two metal faces which contact the back of the band in that. As you push the shoe in, that spring is made so it forms a given pressure on the small last. Of course, in a larger shoe that curvature is going to get bigger; consequently it is going to distort that spring or change it from the position where it now is and apply pressure also. That is the way the pressure is applied in this machine to the particular corners.

MR. HAMMETT: While we are out here, Your Honor, I intended to have the witness point out the difference between this machine and—

THE COURT: —Just a minute. Do you want to cross-examine as to this machine now, or do you want him to—

MR. TOULMIN:—I think we had better do the whole thing while we are out here or we will have to ask him to come back. While we are on that subject—I don't want to delay, Your Honor—I am going to object to this machine because it does not embody certain features of the second McFeely patent. I am going to object to it and then I will list those objections. They are quite lengthy. Then that won't interrupt the examination and when you sit down to study it you will get a complete picture.

THE COURT: All right.

By Mr. Hammett:

Q26 I will ask the witness what model that is. A. The Model D on women's; Model E for men's work.

Q27 Can you identify that machine? A. That is the Model D machine, commercial machine.

MR. HAMMETT: I will offer that in evidence, subject to objection.

MR. TOULMIN: Let the record show we object to this machine as not being a faithful, correct representation of the McFeely patent in suit.

THE COURT: You are later going to point out your specific points?

Mr. TOULMIN: I will point them out later, Your Honor, and in order not to delay the examination now I will defer that.

The Model D machine of plaintiff's manufacture is made part of this record as **Plaintiff's Exhibit No. 7.**

By Mr. Hammett:

Q28 What models of heel seat lasting machines is United now putting out, Mr. Willhauck? A. Now putting out the Model D machine and the Model E. The Model D is for women's work; the Model E is for men's work.

Q29 Can you identify this machine? A. Yes.

Q30 What is it? A. Model D machine.

THE COURT: That is Exhibit 7.

Q31 That is offered as Exhibit 7. I will ask you, Mr. Willhauck, to compare the constructon and operation of the Model D, Exhibit 7, with the Model A, Exhibit 4, with particular regard to the heel band and its operating mechanism, the tackers and the wipers. A. The Model D machine has here the wipers, has the hold-down, means of delivering and controlling the tacks during driving, means of operating the wipers on their forward edge, and means of driving through a central slide. It has the band, it has the supports for the band, and the pressure applying members. There is a slight difference in construction. The principle of applying your pressure is still in the Model D the same as in the Moled A on the forward end of your band. The construction here, of course, is a little more rugged. Also, it is a positive connection in here.

Q32 That is because there are no springs in there? A. That is right. There are springs in those arms but they do not apply pressure to the band. Then the adjustment of the band, it is the same identical means, back and forth. The principle of your wipe in the Model D and the principle of your wipe in the Model A is the same, identically, but they are driven a little differently. The principle is there. They must wipe and wipe over the shoe and wipe inwardly over the shoe and press and compact that material down where it belongs. The tacker is here on top of your wiper, fastened to it.

Q33 Are those wipers adjustable, Mr. Willhauck? A. These wipers are adjustable in the Model D machine. They adjust them from a little different position.

Q34 How do you adjust them? A. We have on the right-hand side of the machine here this hand wheel.

As we push that hand wheel in and engage the end of a beveled gear which has a slot in the hub, we can turn this. You will notice that these members are moving open (demonstrating), that is, this one. That is, the adjustment adjusts both sides simultaneously for the same reason, and they have absolute control over the wiping-over of the shoe on different sizes and any inequalities in the lasting, as I have explained in the Model A. That is the adjustment for your wipers in the Model D. In the Model A, as I pointed out, they are individual.

Q35 Does the adjustment of the wipers do anything to the tackers? A. In both machines the tackers are carried with the wipers, therefore when the wipers move the tackers move with them. Your one adjustment takes care of both. And the tacks are a predetermined distance in this machine from the edge of the wiper. It is built in. The same in the Model A, only they are set on top and moved and fixed and located.

Q36 In the power operation of the machine do the tackers and wipers move together? A. They do. They move together in this the same as in the Model A.

Q37 How do the tackers drive with relation to the edge of the wipers? A. In the Model D machine here the tacks are driven through holes in your wipers. (Witness removes heel band); You will notice there your holes run right through the wipers.

THE COURT: Is that the specific claim we are concerned with?

MR. LYMAN: Mr. Toulmin is going to object to that machine because there is that difference between the Model D and the Model A.

THE COURT: Is this feature one of the seven claims, the driving through the holes in the wiper?

MR. HAMMETT: Not specifically.

MR. TOULMIN: Yes, Your Honor, there is one claim that involves that relative movement between the tacker and the wiper.

THE COURT: Is it or isn't it?

MR. LYMAN: We say, Your Honor, that that specific change does not make any difference, that it is within the claim of the McFeely patent, even though in this machine the tacks are driven through holes in the wipers, whereas in the form as shown in McFeely they are driven a little ahead of that.

THE COURT: I understand that, but is this feature one of the seven claims?

MR. LYMAN: Yes, it is. The feature of the claims that we have, that deal with the wipers and the tackers, is that they are so arranged that they move together in any position of adjustment in the machine which is had, whether they are constructed as shown there (indicating Exhibit 4) or there (indicating Exhibit 7.)

THE COURT: I mean the whole feature.

MR. LYMAN: Not that particular thing.

MR. TOULMIN: We have a sharp issue on that. That involves one or two claims, I think, and that issue of the difference between those machines is the issue of non-infringement on those two claims and is a vital point in our case.

THE COURT: That is the reason I am asking it now. In your machine are the tack holes through the wiper?

MR. TOULMIN: Yes, the tack holes are through the wiper, according to the old Copeland patent, and in their Model D under the second McFeely patent they do not tack through the wiper but tack to one side of it and have to withdraw the wiper on the third wipe, Model A.

By Mr. Hammett:

Q38 Now, Mr. Willhauck, have you demonstrated the lengthwise adjustment of the heel band or not? A. I believe I did when I showed this member adjusting the heel band backwardly and forwardly, the same as it does in the Model A.

Q39 And does it or does it not slide in the clips or presser members? A. It does slide in the clips, the same as your Model A.

Q40 Are the presser members on the two sides of the open end of the heel band independently adjustable as to length or not? I mean these rods (indicating) which apply pressure to these members? A. yes.

Q41 Now, Mr. Willhauck, are the wipers in this machine independently adjustable or not? A. In the Model D you can adjust the wipers on this machine independently, if you wish to, by these members here (indicating), one on that side there.

MR. LYMAN: You can also adjust them together? A. Yes.

Q42 How about the means for applying pressure to the corners of the band? A. In this machine here we applied pressure to the corner of the band by these arms here. They have behind them this plug, and that is a spring, and behind that is a nut. Those arms are

pivoted on a stud in back here. Now, in that construction you can get light, medium or heavy pressure, due to the setting of this particular nut here. You also have a very rugged construction there. You have a free turning movement of the arms, and with that construction of those members there they are still applying pressure to the corners, identically the same in principle, the same as we are here. The method of applying it is a much better method; there is no doubt of that.

MR. TOULMIN: Let the record show the witness is referring to this one as the Model A.

MR. LYMAN: He went into the statement that the much better method was with reference to the Model D.

MR. TOULMIN: But he said it was also the same as the Model A in principle.

THE COURT: Will you just make a short statement as to what would happen to the operation of this machine with this heel band out of there? A. In this position here?

THE COURT: Yes.

A. We can operate that machine and probably ruin the shoe.

THE COURT: What I would like at this point, you see Mr. Toulmin has stated that they have taken that heel band out altogether.

MR. TOULMIN: No, Your Honor; no. I did not mean to interrupt you but I want to correct you. The heel band stays in but it is not supported at the back. This wing nut here is off toward the back. This is cut off, just dropped off, then supported here (indicating).

THE COURT: You still keep this but you just simply support it in a different way?

MR. TOULMIN: Without the support in the back.

THE COURT: I was just wondering, because you said something that your two-dollar shoe did not require the care, and so on. I just wondered.

MR. TOULMIN: This back support is completely detached but you do support it in front here.

THE COURT: You take this off (indicating)?

MR. TOULMIN: That is correct. I will show you on our machine.

THE COURT: I knew you said you sawed it off but I did not know you meant just this rear support.

By Mr. Hammett:

Q43 Mr. Willhauck, is pressure applied to these two pressers members at the open ends of the band yield-

ingly or rigidly? A. No, rigidly; that is rigidly applied.

Q44 A minute ago you said there were some springs in there but they did not have anything to do with the pressure. What do they do? A. They are just simply in there so when we set this machine in, in a certain function of this machine, which we can do by these adjustments here, to get more throw, under certain conditions in the operating of the machine this band is tending to be open before the wiper is moved, and if that yield wasn't this way we would break something. In other words, the wipers are moved over and these cam faces are away in; that is, they are closed about this member, like that. Now the wipers will not move it to get that shoe out and drop it, so we don't disturb what we have done. The band is going to tend to open before these wipers move; therefore the cam will yield on this spring. There is no yield when the operating pressure is applied.

Q45 Is the amount of initial downward movement of the hold-down adjustable in this machine (indicating Exhibit 7)? A. It is.

Q46 Please point out how. A. In this machine here your downward motion of the hold-down is done through cams here. Now on here you have this nut. We can position that deeper or higher than that cut and regulate the amount of initial depression we want to get. On that same cam face we also have a cut which controls the amount of hold-down for the return of the last. That is how we can control the movement of that hold-down. Then we have this cam here. We have a track that has two wipers. It is operated through the roller, through the main slide, with the members which carry the wipers out. And in here we have racks, second levers, pinion and racks in here which, when the cams move forward, exert a pressure on these members and hold the forward ends of the wipers inwardly over that shoe. We have here a lever which operates the jack, the heel band portion, and the lock on this model like on the Model A. It operates identically the same. We present the shoe to the machine. In this machine we trip it with this handle here instead of stepping on it directly. It trips the clutch.

THE COURT: That is the same as was at Krippendorf's this morning.

A. That is the same. On the opposite side we have the drawing in lever, which is this lever here. This is

different in construction. It draws the jack in through that rack which you can see better here. When you trip the clutch the machine takes hold of that and pulls it into the machine, the shoe against that band. Then your sequence of operations on this machine is practically the same as in the Model A. The band closes, the shoe rest comes down and the band is closed, the wipers come in first to wipe, a little more pressure, the wipers are withdrawn, a little heavier pressure on the band and against the jack on the second wipe, and then you have a means, the same as over there, of depressing the shoe, opening the wipers, releasing of the proper mechanisms, and let the jack fall outwardly into this position.

THE COURT: Are there any McFeely improvements of your Model D over Hoyt, or does this just combine the McFeely with Hoyt? There are no new McFeely improvements in Model D? A. No.

THE COURT: Everything is in there (indicating Exhibit 4) of McFeely, and Model D represents McFeely plus Hoyt.

MR. LYMAN: That is right, and Mr. Toulmin contends it is a modification, and so on.

MR. TOULMIN: My position, Your Honor, is that as it is changed in the transfer from A to D, it has changed McFeely in a number of particulars.

THE COURT: While we are here on that subject you are not making any additional McFeely claims, even though the McFeely features are better than these?

MR. LYMAN: No, no.

MR. TOULMIN: So far as I am concerned, Your Honor, so long as you are not misled as to certain features, I don't think this machine is material. You can look at Exhibit 4 and get the results.

THE COURT: That (indicating Exhibit 4) contains all of the McFeely, but this (indicating Exhibit 7) combines the McFeely —

MR. HAMMETT: — Plus Hoyt.

MR. TOULMIN: I want to make my position plain on that, that there are fundamental changes in this (indicating Exhibit 7) over McFeely.

THE COURT: I understand that.

By Mr. Hammett:

Q47. Mr. Willhauck, does this Model D machine have what we call the "upwipe"? A. It does.

Q48 Does Model A have it? A. It does.

Q49 I started out by asking you—but we got a little off the track—what are the differences between the Model A and the Model D? A. The differences are, as I

say, you have got your wipers here and you have got your tackers fastened to your wipers. In this machine here (indicating Exhibit 7) you apply the pressure to your band through rigidly mounted members.

Q50 At which end of the band? A. The open end of your band.

Q51 All right. A. You apply pressure at the corners of your band through those pivoted levers and the plungers. The principle of applying it is in the Model A better than in the Model D, much better. Now then, on your Model D you also have a little different means of operating the side wipers on your cam.

Q52 What I am particularly interested in are the features in suit, which are the heel band, wipers and tackers.

THE COURT: Specifically, what are the two Hoyt features in this (indicating Exhibit 7)?

MR. LYMAN: Your Honor, may I explain this?

THE COURT: Yes.

MR. LYMAN: The Hoyt features are, in the first place, that the pressure connections between the operating member and the forward ends of the heel bands are made unyielding right where my fingers are, unyielding on the compression movement—there are very definite reasons for that—whereas the pressure members toward the bight of the band are yielding.

MR. TOULMIN: That would be on the extreme end?

MR. LYMAN: Yes. Then, in addition, the Hoyt covers that particular—can we take this off and see the pressure members in the back? (After a part was taken off): There are some arms here—you can't see them very well—at this point here (indicating), but there are a couple of pivoted arms in here that are freely moving. You can see it from some drawings; we have a thing that will show it relates to the construction of that particular part of the mechanism. The Hoyt invention, so far as we are concerned, has to do with the construction of these particular parts that I am pointing to here (indicating), which exert the pressure upon the heel band, and that is all it consists of, a couple of swinging pivoted members there that are pressed in by these spring-driven members here (indicating).

THE COURT: I see.

MR. LYMAN: We will have another assembly. That is where the Hoyt improvement is.

At this point a recess was taken until two o'clock in the afternoon of the same day, Tuesday, January 17, 1939.

AFTERNOON SESSION.

TUESDAY, JANUARY 17, 1939.

Court met pursuant to recess, counsel being present as heretofore noted.

Thereupon,

Augustus D. Willhauck

resumed the stand and testified further, as follows:

By Mr. Hammett:

Q53 The machines which you were describing this morning, namely, the Model D and the Model E to which we referred, what types of shoes are they used on? A. The Model D can be used on women's work, McKay or welt; the Model E is for men's work, McKay or welt.

Q54 The Model E to which we referred, I wish you would compare that with the Model D a little more. How does it compare with the Model D? A. The Model E machine is built for men's work. It is a heavier constructed machine. The principles of operating a heel band and wiping and tacking units, as far as adjustments are concerned, are identically the same as Model D. The jack, instead of being operated manually, is operated by means of a hydraulic unit. In other words, you have one treadle and you simply depress the treadle and the hydraulic unit goes into operation and relieves the operator of that motion by putting the jack in and bringing the lever down and back.

Q55. Otherwise the cycle of that machine is the same? A. The same.

Q56 I want to be sure one thing is clear. With that adjustment on the side of the machine, when you slide the heel band lengthwise of the shoe do the clips and pressure members at the open end of the band move lengthwise or not? A. No, they do not; they remain stationary.

MR. HAMMETT: I would like to bring out these sub-assemblies to which we referred, Your Honor.

Thereupon two devices were produced by counsel for plaintiff and placed before the court, after which they were marked for the purpose of identification **Plaintiff's Exhibits 8-A** and **8-B.**

Testimony of Augustus D. Willhauck (Resumed).

By Mr. Hammett:

Q57 Now, Mr. Willhauck, what are these subassemblies which we have produced? What do they illustrate?

MR. TOULMIN: Before you answer I would like the record to show, if the court pleases, that we are going to object to both of these exhibits because they do not represent the construction of the patents in suit. They have some features of radical departure from the two patents in suit. I want the record to show that now and I am prepared to state some of the differences I can observe standing here. I have only been here a couple of seconds to see the differences between these two models and the patents in suit. I wish the record to show that the problem before the court, in our judgment, is the difference between the patents in suit and defendant's construction, and not between some models made up to represent plaintiff's patents, which they do not do, and defendant's construction. I have no objection, and this defendant wants to make it clear, to anything that will be educational and helpful to the court. As a matter of duty I must call the court's attention to the fact that these two models, 8-A and 8-B, do not represent in some essential features the patents in suit.

MR. LYMAN: Perhaps it would be well to let the witness state what they are before you make your objections.

MR. TOULMIN: I want that to be clear before anything goes on the record.

THE COURT: Of course, they are going to be used at this time merely for the purpose of illustrating certain points and to enable, as I understand it, the court to more clearly understand the operation of the claims in issue. Is that the point?

MR. HAMMETT: That is right, Your Honor.

MR. TOULMIN: If they are erroneous in their construction the court will be misled.

THE COURT: Of course, you have a perfect right to cross-examine, and I think at this time you may have an exception and then you may cross-examine.

MR. TOULMIN: When will it be Your Honor's pleasure for me to state what I object to about these? When they get ready to offer them? I will do it whenever it is agreeable to you.

THE COURT: I think that would be the right time. You can do it now, if you want to.

Testimony of Augustus D. Willhauck (Resumed).

MR. TOULMIN: I would rather do it now, if the court pleases, if I may, because they may not offer them for some time.

THE COURT: That is all right.

MR. TOULMIN: In the exhibit marked for identification 8-A, as I see this model it lacks the main spring.

THE COURT: I wonder if we wouldn't make more progress if you let the witness point out what he wants to describe here. It may be, of course, that some of the things that you object to as missing are not essential for this purpose.

MR. TOULMIN: No, they are essential, Your Honor. Of course, I will defer to the court's wishes.

THE COURT: All right.

MR. TOULMIN: I point out in the model Exhibit 8-A for identification, which I understand is to represent both the McFeely and the Hoyt construction, that in the McFeely patent in suit this model omits the spring shown in Figure 4 of that patent, which I think is marked 128, without referring to the specification. It is the major compression spring through which the power is transmitted by the handle on the model or by the cam and lever on the machine, through the bell crank system to the ends of the heel bands. In this construction there is also no separation, as I can see it as shown in this McFeely patent, Figure 4, at the connection between the bell crank and the end of the heel band.

With reference to the Hoyt patent, which this is supposed to represent, the two levers 240 and 242 in the Hoyt patent do not have any set screws to limit their movement to render them immobile, because the claim involved says that those levers must be freely or loosely mounted. In the model set screws have been applied which bear against the support for the back of the heel band and the outer ends of these arms on the other side engage against the plungers, so that they become immobile, which is contrary to the teaching of the patent which says they must be mobile. I object, therefore, to the set screws because they completely controvert this method of operation as taught by the Hoyt patent.

With reference to model Exhibit 8-B, which I understand represents the Model D in the next room, of the United Company, I can't tell, but apparently it also lacks the spring, the main spring to which I referred in connection with Figure 4, as well as it lacks the small springs 132, all of which have to do with the spring movement at the outer ends of the compression arms on

the heel band, which connection is made an element, a particular element of several of the claims, and its presence or absence is material in this case.

We further object to this model because, like Model D, to which we also object, it shows the application of the tacks through the wipers, that is, the wipers and tackers have no interconnection between each other that is separate and apart from their attached means. They are attached together and moved together continuously. In this model Exhibit 8-B these tackers and wipers make two movements and always together, and the tacking is through the wipers. In the McFeely patent in suit the wipers make three movements, two with the tackers and wipers moving together, and then due to the interconnection specified in two of the claims, the wipers are held against further inward movement on the third stroke and the tacker is moved inwardly and tacked within the wipers. This Exhibit Model 8-B does not have this movement, which is essential in connection with a number of the claims.

Furthermore, in Exhibit 8-B, instead of having, as in the McFeely patent, the three wipers, as specified by this arrangement, there are only two wipers. These features, if the court pleases, are all essential elements in the claims and are material to the determination of this issue. For that reason we object to these models, as being misleading.

THE COURT: Well, I guess we had better consider that. What do you have to say about that?

MR. LYMAN: Your Honor, these models don't purport to represent the structure as shown in the McFeely patent. They are models to show Your Honor just how the Model D construction is. They are Model D in both cases. They give you the means of comparing Exhibit D with the patent, and if my brother takes the strange position—strange to us—that the Model D is not an embodiment of the McFeely patent, in order to pass upon that objection you would have to see what the Model D construction was. These are parts of our Model D construction.

THE COURT: Of course, you are relying upon your claims in the McFeely and Hoyt patents, and if there is any merit to the objection here I think that it shouldn't be lightly considered. The point is that if you are attempting to establish your McFeely patents by a mechanism that isn't in fact a McFeely patent, it would seem the objection is well taken.

Testimony of Augustus D. Willhauck (Resumed).

MR. LYMAN: You can't tell whether it is the McFeely patent or not until you see what it is. That is the point.

MR. TOULMIN: The trouble is, Your Honor—may I say this to you—we have gone along here for nearly a day and a half and we haven't yet had the McFeely patent or Hoyt patent explained to the court in detail, so you would have some standard of comparison. What you have got to determine is whether we have taken the claims of the McFeely and Hoyt patents as compared with our machine, and if is improper to have the court compare a model which they say is McFeely, which has been made up, with a machine of our construction, and we object to that method of proving a patent case, because it is contrary to law.

THE COURT: I much prefer to determine this case, in view of the objection, without reference to the two models, if there are any essential features in those models there that are not in the McFeely patent. Now, just for the purpose of keeping the record straight I would much prefer that this feature of the case be withdrawn and you consider it and see whether you want to press the point or not. At this point I don't think we want any further testimony unless you are able to overcome those objections, because it appears that, so far as those two exhibits are concerned, we ought not to use them at this time.

MR. LYMAN: I think this, Your Honor, that it is time that Your Honor knew what the claims we are relying on go to, and I didn't speak of that in the opening yesterday because I knew that until Your Honor had seen the machines you would not comprehend what the subject-matter is. Now I think since Your Honor has seen the machines that I ought to take a little time in order to explain in detail.

THE COURT: I think that is all right.

MR. LYMAN: Then when I have done that I will talk a little further about these mechanisms, which are not presented as models of the patents in suit at all. They are simply to show the internal parts of that machine that we have seen this morning, as an exemplification and a further illustration of what there is in the Model D machine. That is all they are and all they purport to be, so Your Honor can see, as you could not see by looking at the machine itself, how these things work. And I don't think that it is necessary for Your Honor to pass at this time—certainly it is not necessary

for Your Honor to pass at this time upon the question of whether the Model D machine is an embodiment of the McFeely patent, which we certainly say it is, not literally the same but it has the principles—but in order to pass upon that question, since it is challenged—and I hadn't any idea that anyone would have the temerity to challenge that proposition—but since it is challenged the only way Your Honor can pass upon it is to know what the construction and operation of the Model D machine is.

THE COURT: It seems to me it is a very serious proposition to offer two models that embody features that are not claimed in the patent to help establish your patent.

MR. LYMAN: These are offered, Your Honor—

THE COURT: —I understand that. Some of these patent cases turn on very close points, and I dislike, of course, to have any question of evidence raised that might turn the case and, as far as I am concerned, your machines in there are just as informative as those two models there. It is up to you, but I don't think we ought to go further.

MR. LYMAN: The thing is, Your Honor, we need something to show to the Court of Appeals the detail of these machines we are talking about. Please bear this in mind, that the witness has not been allowed to answer yet as to what these things are. Now my brother comes along and says "I assume this is a model showing the McFeely patent." It is not so at all. It is just actual parts of the Model D machine that we have seen arranged so that we could see them go through their paces, see the particular mechanisms that actuate them, see that Hoyt improvement, which we could not see actually in the machine this morning. No ruling is required at this time as to whether the Model D machine is in conformity with the McFeely patent or not. That is not the question. It is simply an illustrative model which we really need to explain the case to the Court of Appeals; we really need it in order to explain some of these details to Your Honor. But I think that first, if I may be permitted, I ought to explain now just what we are complaining of in this case and what these claims mean.

THE COURT: I think that might be better, and of course that may alter this.

MR. LYMAN: * * * Now the other two claims, 68 and 71, relate to upwiping. Let us read claim 68:

Testimony of Augustus D. Willhauck (Resumed).

"In a machine of the class described, in combination, a support for a last and shoe, power operated means to engage and clamp the upper to the sides of the heel end of its last"—

That is this power operated means for clamping or putting pressure on the heel band to clamp it to the heel—

"means for relatively moving the shoe support and said clamping means substantially perpendicularly to the plane of the shoe bottom to cause said clamping means to wipe the shoe stock toward the bottom face of the last,"

Your Honor sees what that means. If you have here a band, you have a last in it here and you clamp the heel band to it and then move the last down and let you get what they call an upwipe movement. You have heard them talk about that. That is what two of these claims are particularly directed to, this one and another one, that is, to no movement but the upwipe.

THE COURT: While you are on that point, do we understand that your machine does not upwipe?

MR. TOULMIN: It does not have upwipe, and Mr. Lyman states in his trial brief that the machine they inspected at Portsmouth did not have upwipe, and if the rest of the machines are like that then they all did not have upwipe.

MR. LYMAN: The machine which we were allowed to see at the Williams Portsmouth plant, Your Honor, had a cam of such a nature that it could not produce this upwipe movement. In that respect it was unlike the plaintiff's machines. We will have evidence on that point. All we have to say on that is that if the machines were all the same as that machine and always have been with regard to that cam, then this claim 68 and claim 71, which are directed to the upwipe, are not infringed.

MR. TOULMIN: We say, Your Honor, that we think claim 42 is also an upwipe claim.

THE COURT: I just wanted to follow, and if the machine is that way, that rules out 68 and 71 and eliminates the necessity of proof by plaintiff to sustain those two claims.

MR. LYMAN: Yes, Your Honor.

THE COURT: All right.

Testimony of Augustus D. Willhauck (Resumed).

MR. LYMAN: So much for the McFeely patent. I hope by delaying this exposition of the claims I haven't done anything that has confused the court, but I thought that until Your Honor had seen this mechanism you wouldn't be in a position to comprehend what—

THE COURT: —No, not at all. It just forecloses a contention and, as I say, we are saving time, as I see it. If you say that the defendant's machine doesn't provide for upwiping, then it eliminates the necessity of covering 68 and 71 because that is no longer in issue. * * *.

THE COURT: While you are on the subject now, the suggestion is there are set screws. Are they necessary?

MR. LYMAN: I don't know. Is this (indicating on model) what—

THE COURT: —That is here (indicating on model).

MR. LYMAN: What are these, Mr. Willhauck? Just informally explain.

MR. WILLHAUCK: We can take those set screws out and throw them out of the window.

THE COURT: What are they for?

MR. WILLHAUCK: They are for this purpose. We adjust this band down for a small shoe and then we control this pressure so we do not have abnormal work to overcome that pressure in adjusting the screw to a small shoe. We could take them out.

MR. LYMAN: Have they something that is superadded on?

MR. WILLHAUCK: They objected to the force when these members (indicating) were squeezed in. They had to ram back too far against them. They can run it that way—no objection to running it that way at all.

MR. TOULMIN: You are referring to Exhibit 8-A.

MR. LYMAN: You can't do anything with those things.

MR. WILLHAUCK: That is too heavy to operate with your fingers.

THE COURT: The point is that originally this was done without—

MR. LYMAN: —Your Honor, those were not in the original machine, but as far as the functions are concerned those levers have no deterring effect on it; in fact, it is a help. It may be a little difficult to explain, but you have a pressure. Now, to make these things operate they must be set to a normally small heel portion of the shoe. If you determine what you want there, and you let these things fly away back here, you can put the shoe in because the levers will abut against here—

that is all—but the operator will have to work harder to overcome your pressure. The principle is still the same.

THE COURT: Is this a refinement over the original?

MR. WILLHAUCK: It is a refinement. That is about what it amounts to, just simply to help the operator. It is—

MR. LYMAN: —You are asked if it is a refinement of that.

MR. WILLHAUCK: I would call it a refinement on that particular portion.

THE COURT: That would mean something that makes it a little better but it still is the Hoyt?

MR. WILLHAUCK: It is Hoyt.

MR. TOULMIN: The claim says these two arms must be free (indicating). When you put the set screws in, which are not shown in the Hoyt patent, they are not free. Therefore it is a different combination than is called for in that claim.

THE COURT: Is this (indicating) free?

MR. WILLHAUCK: If I take these set screws out here, understand, and I have at first sufficient pressure on these members and let this abut against this solid member here. Am I clear?

MR. TOULMIN: You have not answered His Honor's question. We want to know if those arms would be free if you take the set screws out.

MR. WILLHAUCK: Those arms would be free to move in further but the point I am trying to make is this: Unless at that time the springs have been relieved of all their tension you will have the same identical condition that you have now.

MR. LYMAN: Take out those set screws and see what will be the situation.

THE COURT: That is one of your objections.

MR. TOULMIN: Yes, because that is a fundamental element of the claim.

MR. LYMAN: You can't tell whether this is an embodiment of the invention until—

MR. TOULMIN: —You can see the set screws are not in the patent.

MR. WILLHAUCK: I can relieve that screw and take it out. That spring in there is still too hard to move that lever.

MR. TOULMIN: Not with power on it isn't. You can't do anything with your fingers.

MR. WILLHAUCK: Yes, but the machine is still free to move it back with the set screw in.

Testimony of Augustus D. Willhauck (Resumed).

MR. LYMAN: But with the set screw in you can move it.

MR. TOULMIN: Not with those set screws.

THE COURT: As I see it, with the set screw in there it limits the motion.

MR. WILLHAUCK: It is limited before we throw those springs.

MR. TOULMIN: But the claim is not directed—

THE COURT: —It says "free movement."

MR. TOULMIN: Not the bodily movement, but about that pivotal movement.

MR. LYMAN: I think, Your Honor, you understand the situation, but we can't be sure of the Court of Appeals. Of course, it is vital for us to show the court, if there is any question about this machine Model D being a McFeely machine. We want these exhibits in evidence in order that the court can pass upon that question.

THE COURT: Let us hear from Mr. Toulmin again and see if we can have an understanding which will limit the use of these. Will that meet the situation?

MR. LYMAN: Oh, yes.

THE COURT: Will that meet the situation, if we limit the use for which they are being received?

MR. LYMAN: Yes, just to illustrate the Model D construction, that is all. That is the only thing they are.

MR. TOULMIN: It will not meet my objection, Your Honor.

MR. LYMAN: You can't have any objection—

MR. TOULMIN: —Just let me finish, please, because the points I have recited before in objecting to this go to those vital features, elements of the claims in issue.

Let me say to Your Honor just one thing, please. The issue you have got to determine is whether the constructions set forth in the claims of their patents have been appropriated in defendant's machine. That is the only issue. You are not to compare some embodiment that these gentlemen may sincerely think is in their patent with our machine, because the courts have held you can't do that, because that would be dangerous. All you can do is to take their document, which represents their McFeely, and compare that with what the defendant has done.

Now I object to this machine for this good reason—I am referring to Exhibit 8-A. Their Hoyt patent in Figure 2 doesn't show those set screws. Those set

screws are not there, because the claim of that patent, Claim 21, says as one of its elements "devices comprising arms loosely mounted on the supporting means." When you place the set screws in position so as to prevent their movement they are no longer loosely mounted upon the pivot point, because they can't move. The Moenus Company, from whom we got the machines, has those set screws in the machine and they are used for the purpose of adjusting. They add these screws to this model in order to try to make their patent closer to us, knowing that their patent is defective and does not have set screws and doesn't have the same movement that we have, and this is an attempt to lift themselves by their legal bootstraps. Now, so much for that construction there.

So far as I can tell from this model here (indicating), the large spring that should be in this model, which gives the resiliency necessary at the ends here to prevent the thing from wrecking itself when the pressure comes on, that large spring is not in there. I have not opened this up but as far as I can tell it is not there, and the resiliency seems to be wholly in that heel band. That large spring in the McFeely patent, as well as in Hoyt, is shown in Hoyt at 195, it is shown in the McFeely—

THE COURT: —There is no question it is in the machine we saw outside?

MR. TOULMIN: It would have to have it or it would not operate.

THE COURT: I mean for practical purposes.

MR. TOULMIN: Let me tell you the significance of that. The claim that involves that spring—there is one claim or two claims that say that these connections through here must be without a spring. That is just a rough way of putting it. This does have in the original construction a yielding connection. McFeely has springs in there. The McFeely patent—

MR. LYMAN: —Don't bother yourself. There is a spring there. And please remember, Your Honor, that nobody is presenting these as models of the patent in suit.

MR. TOULMIN: Then we shouldn't have them in there.

THE COURT: Do you agree there is a spring in there?

MR. TOULMIN: If I can take it out and look at it.

MR. LYMAN: Take it out and look at it.

MR. TOULMIN: Give me a wrench.

Testimony of Augustus D. Willhauck (Resumed).

MR. LYMAN: Please bear in mind that we are not asserting these are copies of the patent in suit.

THE COURT: I understand they are for illustrative purposes only.

MR. TOULMIN: If it is for illustration, and it is known to Your Honor what the differences are, we have no objection to them for illustration, to see what the parts are, but I don't want to leave it with Your Honor without an understanding of the differences, or have parts put in here that are controlling on the matter of infringement.

THE COURT: I understand there is a specific claim that this portion is loose in the patent. Here (indicating Exhibit 8-A) it isn't loose; it is held. You claim your machine is built like this but that the Hoyt patent does not cover this, but this is supposed to be loose in the Hoyt patent.

MR. TOULMIN: That is correct. And let me go one point further. In the McFeely patent it has springs out here on the end, out here (indicating), as you will see from this Figure 4 of the McFeely patent. As I understand it, this is a rigid connection, without any springs in it.

THE COURT: That is the feature of the Hoyt patent, isn't it?

MR. TOULMIN: That is correct, but if this is to represent McFeely then it is not correct.

THE COURT: 19 and 21, this is a rigid construction here and this loose connection that you are objecting to, the patent provides for, this loosely—

MR. TOULMIN: —"comprising arms loosely mounted on the supporting means."

THE COURT: This isn't loosely mounted.

MR. TOULMIN: If that is understood, I have no objection to Your Honor looking at it and seeing it all you wish.

THE COURT: Of course, it is just a question of interpretation then. The witness claims here that this adjustment makes it unnecessary to push that heel band back further; is that right?

MR. WILLHAUCK: Yes, Your Honor. You see, before you allow that to come away ahead and, as I say, de-compress those springs and have no tension on them, that would be loosely mounted, in other words, even from that position, because they can flop back here to where this plunger was.

THE COURT: Is it your position the function is no different than the original Hoyt patent?

Testimony of Augustus D. Willhauck (Resumed).

MR. WILLHAUCK: No difference that I can see.

THE COURT: If we understand, subject to the inspection of the springs there, that removes one objection, and then the fact you claim this is rigidly mounted instead of loosely mounted, as provided by the patent, this may go in.

MR. TOULMIN: For illustrative purposes, for assistance to you, but with the further understanding we are firm in our position you have to compare our machine with the patent.

THE COURT: It will be received subject to that, just for the benefit of the Court of Appeals.

MR. TOULMIN: I haven't had a chance to look at this (indicating).

THE COURT: These will be all subject to your inspection.

MR. TOULMIN: And it is subject to my same objection as to the tackers and wipers, which I would like to show the court right now, if I may, why I object to this. If you will look at the McFeely patent in suit, Figure 7, you are looking at the side of one of those tackers and the wiper is in section, and this is the means for moving. In the McFeely patent there are three movements. You first make a preliminary wipe in and the tacker travels over; second, you make an intermediate wipe in and the tacker moves with it; and, third, due to this spring and connection with the slot, the wiper only goes part-way, the tacker goes on beyond it and tacks on the inside of the wiper.

THE COURT: No, as I understand it, the tacking device is always ahead of the wiper.

MR. LYMAN: That is right.

MR. TOULMIN: It is always ahead of it but nevertheless the wiper is held back on the third movement, and the patent says so on page 7 of the patent. In this model Exhibit 8-B there is no relative movement and no mechanism to permit that relative movement, and it does not follow the original McFeely patent.

THE COURT: Let us see if we get this right. Here the tacking apparatus and the wiper are together. They are almost joined. In the original, the tacking arrangement is always ahead of the wiper.

MR. TOULMIN: In the second McFeely.

THE COURT: In the one in the patent in suit there are three movements. The third movement is when the wiper holds it in place and the tacks are driven, but the tacking arrangement moves with the wiping arrange-

ment all the way through. It is differently mounted on the later machines because it is driven in the holes.

MR. TOULMIN: No, that is not correct, Your Honor, if you don't mind.

THE COURT: We don't want to misunderstand that.

MR. TOULMIN: I am not trying to be contentious about this but I want to get it right. This goes to one of the claims and is vital. This pin in the slot is to permit relative movement. If you will just mark on your copy, page 6, lines 91 to 108, and page 11, line 116, you will see this described in the patent. I will mark them and then read it. You will have to study it, of course, to be sure it is right.

THE COURT: The tacking feature is mounted differently on the later model than the McFeely model.

MR. TOULMIN: That is correct.

THE COURT: But the tacker and the wiper move automatically the same, but the only thing is, on the later model the tacking comes through these holes, which are similar to your machine.

MR. TOULMIN: That is correct.

THE COURT: But they are not making any claim because the tacks are driven through the holes, but the claim is made because the tacking and the wiping arrangement is automatic, they move together.

MR. TOULMIN: And I say in the McFeely patent it is so mounted that there is a loose connection, as they call it in their claim, permitting relative limited movement between the tacker and the wiper to permit of tacking on the inside of the wiper instead of through it.

THE COURT: I know.

MR. TOULMIN: That is in one claim.

THE COURT: That is for the purpose of adjustment only.

MR. TOULMIN: No, Your Honor, that is not for the purpose of adjustment. It is for the purpose of the fundamental operation of the McFeely patent in suit, and the claim so specifies it. That is claim 6, if Your Honor will mark it, and I will show you where to underscore the part that we don't have. Claim 6, the last element of the claim, "tacking units cooperating with the wiper plates and having means"—that is a separate means—"to maintain them in predetermined relation to the wiper plates in all positions of adjustment of said plates." When you read this specification you will find that refers back to the figure that I had here a minute ago that shows that relative movement, and the ma-

chine won't operate unless it operates that way, and I say, therefore, it is unfair to this defendant to have a model which has been made like it instead of made like the patent in suit. W are willing to stand or fall on the patent in suit compared with our machine; we are not willing to stand or fall on a model made like this to determine a claim of that breadth.

THE COURT: There is no understanding on my part that in the McFeely patent in suit and the machine the tacking is not done through these holes but the tacking arrangement is just ahead of the wiper always, but the wiping mechanism is practically the same, is the same in both machines, the only difference here on this model, as I see it, being that the wiping and tacking arrangement—they are practically combined.

MR. TOULMIN: They are rigid in this case and in the other they move relative to each other. If you understand that, I am satisfied.

THE COURT: I do understand that. There is no mistake on that score.

MR. TOULMIN: If you look at Model A you can see exactly what I mean.

MR. LYMAN: We don't want to argue the case now.

THE COURT: As far as I am concerned, as I say, this is merely for illustrative purposes.

MR. TOULMIN: Where is the spring?

MR. LYMAN: We will ask the witness when he gets to describing it.

MR. TOULMIN: You said you had a spring here.

THE COURT: That is subject to inspection, as far as the spring is concerned. They say it is there. That is subject to inspection. If you say, with the understanding it is purely for illustrative purposes, that is all it means, I understand the difference.

MR. TOULMIN: And so long as you understand that the McFeely patent in suit has that relative movement and will take that into consideration as our position, then if this can be of any help to Your Honor I am delighted to have it in.

THE COURT: That is the only thing.

The illustrative model referring to heel band mechanism in the Model D machine (Exhibit 7) is made part of this record as **Plaintiff's Exhibit No. 8-A.**

The illustrative model referring to the wiper-tacker mechanism in the Model D machine (Exhibit 7) is

made part of this record as **Plaintiff's Exhibit No. 8-B.**

Thereupon the court returned to the bench and the direct examination of Mr. Willhauck proceeded as follows:

By Mr. Hammett:

Q58 The question asked of the witness was, what are these exhibits which are marked 8-A and 8-B. Please answer that question. A. The exhibit marked 8-A is to show the band and the mechanism operating on that band to apply pressure, and the adjustment of the band forward and back in the machine.

Q59 In what machine? A. The Model D machine.

Q60 What is 8-B for identification? A. 8-B represents the wiping and tacking units and the means of adjusting and operating them in the Model D machine.

Q61 Now that we have these models uncovered and separated I wish you would please explain the operation of the parts shown in Exhibit 8-A for identification. A. Exhibit 8-A, of course we can't produce and put a cam on this. We simply substituted for the cam a hand lever. We have the actual parts from a Model D machine, commercial machine, which is here. For the purpose of the inspection, instead of mounting it underneath a plate on top we have simply put the support on the bottom. This cam here is simply as a means of holding that stud in proper position, where it would have a head of the machine to keep it in its position when it is in the place in the machine where it belongs. We have the racks which operate upon segment levers which go forward and exert pressure on this member here on the front edge, or end, rather, of this band. It is the same on this side here. We show here a means for applying pressure on that band, what I call corners or ears. We show the clips which afford that path on either side, and we show the means of adjusting that pad.

Q62 Referring to this means of applying pressure at the corner of the pad, please explain how those arms are mounted. A. Those arms are mounted upon this solid carrier right here. The fit around that stud is such that the levers are free to pivot. Of course, to get a pressure in here at the corner we must have tension on these screws. Now, those are individually mounted and we can get a minimum pressure or a medium pressure or a maximum pressure at that particular area by the

amount that those screws screw into the hole to move them out, that is, compressing or lengthening the spring.

Q63 Where is that spring? Will you point that out to the court? A. That spring is in this member (indicating) and in the plunger.

Q64 In other words, there is a spring between this plunger and this screw? A. On each side.

Q65 Will this presser member—and I am pointing to the presser member at the corner of the band—yield by compressing that spring? A. It will.

Q66 And when it does so, these arms will move about this pivot at the end of the band, will they not? A. They will.

Q67 Will you show the court how you adjust the heel band? A. Your heel band is adjusted by means of this lever here, which runs through the machine and has a pinion on the end of it which meshes with the teeth in the rack that goes back into the bearing. By a motion of this lever rearwardly you slide that pad back into the machine; forwardly it will bring the pad forward. It slides in its supports to the front, and it does not change its size. That is the distance, of course, here at the open end. You can hardly see that, but that actually takes place.

Q68 When you slide that do the presser members move, the presser members at the front end? A. No, the presser members at the front end don't move. The pad moves in relation to your presser members.

Q69 Going back again to these two arms which apply pressure at the corner of the band and to the set screws which are interposed between those arms and the back stop, you said those arms yield. Is that true regardless of the presence or absence of those set screws? A. Yes.

Q70 What is the effect of the set screws there? A. The effect of the set screw is simply this. These springs in here are operating upon these levers. Those levers are right close to the pad. This spring is put in a pressure against the curvature of that pad, getting a resulting pressure in this direction (indicating). The other one is doing the same thing. Those two combined give you a resilient force that is going to force that pad forward out of the machine. Now, in working on a woman's shoe there is no need of getting down to a pad the size of a miss's or an infant's shoe. As I show by moving those set screws, those arms will move in. It is just simply the means of taking a position on the shoe that you are

operating upon that the operator, or even the machine, does not have to do a lot of useless work in hauling it back into the position it is supposed to be in.

Q71 If I understand what you have just said, these set screws limit the extent of the yield. A. Forward.

Q72 There has been some talk about whether or not there was a spring interposed in these driving connections. Is there any spring in these driving connections? And I refer to the hand levers. A. There is a spring. If there were not a spring in there you wouldn't get any motion of your pressure members. You have got to have it in.

Q73 I think we can now turn to model Exhibit 8-B, unless you have anything further to say about 8-A which I have overlooked. You might operate the lever and show His Honor how that operates the heel band. A. Of course, I can't hold the shoe in the position—

THE COURT: —We went over that whole thing.

A. (Operating device): It simply applies that pressure.

Q74 You will note that slides. 8-B, please; what does that represent? A. 8-B represents your wiping and tacking units and means of adjusting them in a Model D heel seat laster. We have back here a handle to take the place of a cam; we haven't the actual cam on. We have the cam mounting, we have the adjustment for adjusting the wipers so you can take advantage of a predetermined distance of movement built into the cam and still cover a full range of shoes.

Q75 Please show that adjusting means to which you just referred. A. This is the adjusting means right here (indicating).

MR. HAMMETT: Witness points to hand wheel at side of Model 8-B.

A. To operate that adjustment the machine must be — that is just what I did, just simply put it in its straight position. You will notice there is a spring on this handle which keeps it out of engagement with that beveled gear. That beveled gear is mounted in this main slide. When I depress or push inwardly on that handle and engage the tongue on the end of this shaft in here with a cut in the beveled gear and turn it, this gear here is rotated. That gear is fastened. It has on it (removing part) this block. That block is supported in here between these two pressure bearings. That is all they do, is to take the thrust of this screw. This rack has these two ears upon it. They extend downwardly

into that nut. It is a nut; irrespective of the shape, it is a nut. Now you can see, as I push that in and turn it, this travel back and forth upon a fixed screw (demonstrating). Now, this turning locks—I may have changed the position, but I shall put that back on—makes your connection between these slides on either side, in turn engaging a pinion which has a rack on it—not a rack on the pinion; it has the rack attached to this slide here on either side. As I turn that you will notice that those members move backwardly or wider or smaller. Now, that moves these members, which are fastened to the block and are fastened to the cam. They move them inwardly or outwardly. That is for the hand adjustment. That all is done from this wheel.

One thing I must explain is the reason for this spring. The reason for this spring is this. If that is left in, in engagement, the machine is started and the shaft moves, you are going to break the end of that shaft. That is only to keep it in safe position.

These adjustments here—

MR. HAMMETT: Pointing to knurled head screws at sides of 8-B.

A. —would increase the range or capacity of this particular unit. In other words, if we leave these cam plates or connections, which they are, to the end of the wiper, in one position, we can go from an extremely large heel seat down to a fairly small one. With a dress shoe, especially in a woman's shoe, you are going to get a very small heel seat across the breast or around the shank, necessitating a little more inward movement. We can't get it because we have already built a predetermined motion into the cam, so we just adjust these members here, move the initial position forward to compensate for it, and proceed as we did before.

One thing I might explain is this. The only function of this particular portion of this unit is to lock it in shipment so it is not jammed back and forth. There is no function in the machine whatsoever.

By Mr. Hammett:

Q76 Mr. Toulmin wants to see that spring. We will take it apart later. A. Yes.

Q77 Will you resume the stand, please, Mr. Willhauck? (After witness returned to the witness stand): You pointed out that the wipers in this assembly are adjustable. Why are they made adjustable? A. The wipers are made adjustable for the reason that you have

a certain motion built into your cam. Now, if that motion is sufficient, the throws are sufficient, and your leverage and so forth, you can operate and operate efficiently upon one particular size of shoe. Your wipers also have a definite shape. That shape is that unit, those wipers. You can't build a wiper that is going to fit everything, so we build it to fit a medium shoe and take into consideration the approach of that wiper to the heel seat. Those adjustments of the wiper govern the approach—the shape plus the adjustments govern the approach of the wiper in relation to your throw. They also allow you to tack a full range of sizes on the shoes, going from the smallest to the biggest. They also will help you in case your lasting margin is a little less than the counter, or such condition as that, to get your tacks in so you can absolutely control all the material you have wiped over by these wipers.

MR. LYMAN: Your Honor understands what is meant by "lasting margin" I presume.

THE COURT: Yes; we went through that.

Q78 In Exhibit 8-B do the tackers and wipers move together when the wipers are adjusted? A. They do.

Q79 Do they also move together in the power movement of the wipers? A. They do.

Q80 What is the advantage of that? A. The advantage of that is this. We want to get those tacks into that lasting margin as close to the inner edge of the members that we are trying to fasten down, as close as possible. We build into that unit the proper relationship between the tack and the edge of the wiper. Our adjustment takes care of our sizes. Therefore, when the operator makes one simple adjustment to take care of the size, automatically he has taken care of the position of his tacks too. In other words, if the operator had to make a special adjustment in relation to the wiper, that is, move the tackers independently, he would have very slow work and another chance of error.

THE COURT: In other words, when you adjust the wipers you at the same time adjust the tacker. A. Absolutely.

Q81 Why is the heelband made adjustable lengthwise of the shoe as I am now illustrating on Model 8-A? A. That heel band is made adjustable in that manner to take care of the position of the shoe that we are going to heel seat last in relation to that tacking and wiping unit, the first one. In other words, you may want to

Testimony of Augustus D. Willhauck (Resumed).

drop it a little further back to get your tacks in closer around here (indicating on Exhibit 5-G). That will take care of that condition there. Now in that wiper, of course, we also have this condition, that the distance from here to here (indicating) is longer.

THE COURT: That is, from the—

A. —Back of the heel right at this particular point (Indicating on Exhibit 5-G) down to what we call the breast line, on a large shoe is longer than it is on a smaller shoe. There are cases where we do like to get those tacks up as far as possible because your counter is longer correspondingly in those same shoes. Now you can, by absorbing a little of this margin here, moving a little further ahead, place these tacks further ahead. That is bound to follow because it moves the whole shoe forward. Vice versa, if we get a small shoe we don't want to put these tacks so far up and we can move that forwardly, take a little of this distance here, not enough to damage the heel seat lasting, and move them a little closer back. We get that advantage. Another advantage is this, that when we apply this pressure on these members on the forward part of that mechanism to close the open end of the pad—

Q82. —When you say "pad" do you mean heel band? A. Pad or band—we want to get that pressure in that manner (indicating), directly opposed and across at right angles to the last. The reason is that counter extends away up and we must bring that line in just as much as we bring it around here to form the width of the last. We can do that and we can keep that pressure constant and about the same particular relation to a large heel as a small one, by moving that pad back and forth as that adjustment moves the shoe in relation to the pressure. It doesn't move the pressure and the pad can't slide back and forth.

Q83. Let us make a little clearer what you were just explaining. When I move this pad back and forth you pointed out that these pressure members at the open end of the band and these supporting clips at the open end of the band do not move with the band (demonstrating on model). Now what is the advantage of the construction in which the band moves relative to those members? A. The advantage of having it move relative is the fact that if you move that band forwardly and have it set to a certain size you can move it in these members and you do not change the position across there (indicating).

Testimony of Augustus D. Willhauck (Resumed).

Q84 Witness indicates across open end of band. A. I can't operate against those.

THE COURT: I understand.

A. You see that is back in there and I want to get the pressure out in here.

Q85 Witness indicates front end of band. A. I can make this adjustment here and move it rearwardly. You will notice this pressure here has not been disturbed, only its direction disturbed.

MR. HAMMETT: Witness indicates front presser.

THE COURT: Will this help the situation, that you make that one band do the work of two by your lengthening it?

A. Yes. In other words, not only the band but the mechanism.

THE COURT: The mechanism, I mean, by the forward and back movement it is unnecessary to readjust the side movement and let you get deeper into the band without readjusting the side movement? A. Yes, Your Honor.

THE COURT: That is the prime purpose.

MR. HAMMETT: I want to point out, Your Honor, that it is not merely the backward and forward movement of the band that accomplishes that, but when the band moves these things don't move. The mere movement of the band, of course, is not new.

By Mr. Hammett:

Q86 I believe you have already pointed out, if I correctly understood you, the influence of the pressure exerted at the front end of the band and the fact that the band slides relative to the front end pressure members. A. That is right.

Q87 What did you say the result was? A. The result was that you kept the pressure directly across and opposed to one another at the breast line of the heel, and you do not change the intensity of that pressure.

Q88 In other words, the angle at which the pressure is applied— A. —Is constant.

Q89 Now if those presser members move about a pivot, let us say, instead of remaining stationary when the band is moved, what would be the result on the band if they were attached to the band and moved with it? A. If those members were attached to your band and only allowed to pivot, the limitations upon your adjustment would be so small it is practically useless. You would have also a tendency in distorting your band in trying to come forward. If you try to go back you pull

this member trying to exert pressure on your pad, and in pulling it back, that would be the extent it would go; that is all that would go back, because you are trying to make all the pressure with this little handle here. In other words, that is fastened at that particular point. When you try to pull it back, something would have to go.

Q90 Suppose the pressure members were pivoted about the pivot, and suppose they swung back to the band about that pivot. A. You could do that but you are going to change the angle of applied pressure.

THE COURT: What would happen if you did not have that feature?

A. I don't understand.

THE COURT: Suppose you eliminated all of that; what would happen? A. Eliminated all of this (indicating)?

THE COURT: No, the slide movement you are talking about.

A. I think if you eliminated this adjustment of this pad you wouldn't be able to operate efficiently on the shoes the way they would come to the machine, as regards this and as regards your lasting margins. You have to build so accurately to get these things in their proper relations and the shoe would have to be so accurate if they were fixed, you can't get those conditions.

THE COURT: You would have to readjust the size and everything else to fit each different last?

A. You would have to have a complete readjustment.

THE COURT: Is that the claim you make, that that overcomes that necessity?

A. It simplifies the number of the parts you must have and also controls, as I say, and gives us the advantage of all of this other stuff.

MR. HAMMETT: That is the sliding of the bands in these members, not the mere movement of the band itself.

At this point a short recess was taken, after which Mr. Willhauck returned to the witness stand and testified further, as follows:

By Mr. Hammett:

Q91 In order to clear up one little point His Honor asked you, as I understood him, just before the recess, if the fact that you have this adjustment of the heel band in the machine relieves the operator of the necessity of a good deal of adjusting and fiddling with the wiper plates; is that correct? A. It does, because we

don't adjust the pad. The operator will have to adjust the whole wiper mechanism.

Q92 About these springs about which there has been so much discussion, behind the presser arms at the corners of the heel band, are the springs which are in this model regular commercial springs, the same as appear in the Model D machines? A. They are regular commercial springs.

MR. TOULMIN: I want to say, Your Honor, it was not those springs I was raising the issue about. I don't want to confuse you.

MR. LYMAN: This is the spring (indicating).

THE COURT: The center spring.

Q93 I now point to the center spring here, which runs from the operating handle forward. A. Those are commercial parts.

MR. LYMAN: May I ask Mr. Toulmin if he wants this model taken apart, so he can see there is a spring there?

MR. TOULMIN: I would like to see that later. There is no use to stop now.

MR. LYMAN: All right.

Q94 With regard to these adjustment stops on the corner presser arms which, as you have explained, limit the forward yielding movement of the corner pressure members, do those stops appear in the commercial machines? A. They do.

Q95 How long have they been in the commercial machines? A. I should judge they have been in there since about 1930.

Q96 Would your properly term these set screws? A. No, I would not. Those are adjustments.

Q97 Their effect is merely to limit the extent of that yielding movement? A. Forward thrust.

Q98 Are the wiper plates on these machines adapted for McKay or welt work? A. You could get a wiper that is applicable to McKay work; you could also get a wiper that is applicable to welt work. The only difference is, if I may point it out, the wipers in the forward end here of Exhibit 8-B are shaped a little differently, so that it does not interfere with the upstanding rib on a welt shoe.

Q99 Does the United Shoe supply both wiper plates? A. So far as I know, yes.

Q100 There has been some talk about the fact that the pressure that you put into the open end of the band is applied unyieldingly in this Exhibit 8-A. What is the

advantage of applying pressure to the forward end of the band unyieldingly? A. When a man puts a shoe into that pad he must—I will use this Exhibit 5-G to explain what I mean—place that shoe in the pad and then determine by his eye that he has got the proper location that way (indicating). In other words, he can't have the shoe off this way (indicating). Now, with an unyielding pressure, if he does get it off a little bit it is automatically going to try to center itself. That is one of the advantages of having the unyielding pressure. Another advantage is this. On the wiping action on that same shoe you may have the shoe drawn into the band by the drawing in lever, as explained this morning, and locked in that position. The wiper exerts considerable force in this direction as it hits. If that band is closed tightly around there it has a tendency to hug into that little curvature that is helping the mechanical parts of the machine to resist that forward displacement of the shoe. Also, it gets in there and gives a better fit and will give the benefit of any tendency to rock that way. It is supposed to be the same but you may have conditions where they are not the same; therefore, the wiper may work a little harder here then it does there. Finally it brings it down to fit. If you hit it a little harder here you might have a tendency to go there. If you have it firmly gripped here, here and here, the wiper can't displace the shoe.

Q101 Comparing that unyielding pressure with the yielding pressure, which would give the more equal pressure on the two sides of the shoe? A. The solid connected links would give you a more constant pressure.

Q102 I now direct your attention to the arms mounted about this pivot for applying pressure to the corners of the heel band in Exhibit 8-A, and I ask you what are the advantages of that construction as compared with the flat spring which we found in the Model A this morning. A. In this machine or construction of this mechanism you have there a chance to vary your pressures. In other words, by unscrewing those nuts I am pointing to on Exhibit 8-A you will open the length of that spring. In closing it up your will get it longer. In a flat spring construction the extent of pressure that you can apply in this particular area here has got to be built into the spring and it can't be varied unless you substitute another spring of another thickness and another curvature. This particular thing here, you

can get those pressures, where if you tried to do that with the structure you have in Model A you would have to take it out and put a whole new spring in. If you wanted to get it greater or lesser, you would have to do that same thing.

Q103 Can you get different pressures on different seats for different sizes? A. You can adjust this; you can get more here and less here.

Q104 Which construction is most durable? A. This here.

Q105 Pointing to Exhibit 8-A. A. As shown by the Model D construction.

Q106 You pointed out this morning while we were examining the exhibits in the exhibit room that in the sequence of operations of both the Model A and the Model D there is initial downward movement of the hold-down or shoe gauge before there is any wiping action in the machine, that is, when the operator trips the clutch the hold-down depresses the last before the first wipe. What is the advantage of that initial downward movement? A. That initial downward movement you can obtain with it an upwipe because at the time that that shoe rest or hold-down is being depressed your band is being closed about the heel at the end of the last, and that has a tendency, as the last goes down through, to take any looseness—and I can show it on Exhibit 5-E—You will notice that there is looseness in here (indicating). Now we get the band around there, depress it, and we wipe that upwardly toward that face of your insole, giving the wipers a chance to go over it and compact it down over the counter and insole.

THE COURT: That was that operation we saw this morning over at Krippendorf's?

A. Yes, Your Honor, I believe so. I didn't see it.

THE COURT: Weren't you there?

A. No, Your Honor.

MR. LYMAN: Did you have something else to say, Your Honor?

THE COURT: No. I said that was the operation. Mr. Toulmin said he wanted that established, that there was really upwiping, and we went over it two or three times.

MR. TOULMIN: No, I said I could not see any upwiping and my associates said they could not see any upwiping. I also told you it was immaterial on the question of infringement as it developed this afternoon about the upwiping, so I think it was a moot question.

Testimony of Augustus D. Willhauck (Resumed).

MR. LYMAN: But Your Honor did notice—

THE COURT: I gave it about a thirty-second of an inch.

MR. TOULMIN: Yes I remember Your Honor said one thirty-second of an inch.

By Mr. Hammett:

Q107 Is there any advantage in this initial downward movement if the operator, for instance, in inserting the shoe under the jack, should pick up the band? What then? A. Yes, there is an advantage in that. If he picks up that band, come in and picks the band up and raises it up and takes out all that upward motion that was shown in those clamping members, he has raised that band to its limit and got the shoe up against the shoe rest. Now if he leaves that in that condition and tries to take advantage of his second wipe, which is further upwipe, he is going to have a tendency to push the shoe through the band and displacing its upper from the last and ruining it—not ruining it but getting a poor job of lasting. With the downward pressure he cannot take advantage of it because he can move the shoe and the band down. That is the advantage of being able to depress.

Q108 When you talk of moving the band up and down do you refer to this plate in the clips at the end, vertical plate? A. Yes, vertical plate.

Q109 You have spoken of the advantages of this downward movement per se. What are the advantages of having its extent adjustable? A. Well, if you have that downward motion adjustable you can increase the amount that you are going to depress the shoe through the pad, giving you a heavier overwipe.

Q110 Heavier what? A. Upwipe—pardon me, not overwipe—upwipe. You can adjust the varying thicknesses of counters, doublers and linings and uppers there. You also have in that adjustment a chance to vary the amount of upward motion that you are going to get on your second wipe by varying the amount of your depression. In other words, if you depress on the cam a movement will come back on you, but if you only depress one thirty-second the upwipe or upward motion between the first and second wipe will only be one thirty-second, due to the fact that adjustment was locked. You might want to do it in some cases; in some cases you don't want to take it all the way up.

Testimony of Augustus D. Willhauck (Resumed).

MR. LYMAN: I understand, if Your Honor please, these two exhibits, 8-A and 8-B, were admitted for the limited purpose stated.

THE COURT: That is right.

MR. TOULMIN: And we further understand the true comparison is to be made by Your Honor between the patents in suit and our machine.

THE COURT: That is right.

MR. HAMMETT: That is all with this witness.

CROSS-EXAMINATION

By Mr. Toulmin:

XQ1 As I understood you this morning in describing the operation of making a shoe according to the exhibits 5-A to 5-I, this shoe, so far as heel lasting is concerned, could be lasted upon a bed laster; is that correct? A. On a bedlaster—only hearsay—probably could. I am not familiar with heel lasters as regards your bed lasting machines.

XQ2 In the Model A, which I think is Exhibit 4 of the plaintiff, in the anteroom, it is made in accordance, as I understand your testimony, with the McFeely patent in suit; is that correct?

MR. HAMMETT: He did not testify to that.

MR. LYMAN: It is a fact but it will be testified to by some other witness. This witness does not know the McFeely patent. He has not testified anything about it.

MR. TOULMIN: I understood him to say, and I wanted to be sure about it, that the machine he was testifying to this morning as Exhibit A, about which we had a little dispute, was in accordance with the McFeely patent in suit.

MR. LYMAN: I said so, Your Honor. The witness is not competent to say so. In other words, we will have testimony to that effect. You can proceed on that assumption.

THE COURT: I think that might have arisen over some objection to the Model D machine that comprised the McFeely plus the Hoyt patents.

MR. TOULMIN: No, Your Honor. I don't mean to dispute you but I remembered quite clearly, I thought—I made a note to that effect—that this gentleman said that the Model A out there, Exhibit 4, was made like the first McFeely patent.

THE COURT: There was a lot of cross-questioning there. I am not sure. You may put the question whether he did or did not.

Testimony of Augustus D. Willhauck (Resumed).

MR. TOULMIN: He can answer whether he did.

THE COURT: Yes.

A. I don't believe I said it was the McFeely patent. I said it was a Model A and I recognized it as a Model A machine.

By Mr. Toulmin:

XQ3 And the second machine out there is what you call your Model D, is that correct? A. That is correct.

XQ4 Referring to the Model A machine in the other room, and referring to this Exhibit 8-A, it is essential, is it not, that there be some yielding connection, such as a spring, between the point of application of power, such as the handle or the arm on the cam, and the point of application of force so generated at the ends of the heel band? A. I would say yes.

XQ5 As a matter of fact, if there wasn't a yielding connection somewhere in that train of application of force, the machine would not operate, isn't that true? A. That machine would operate providing your motions were so arranged that you did not get beyond the point where you had to break something.

XQ6 Yes, but taking the machine Model A, Exhibit 4, or this model Exhibit 8-A, it is necessary to have a substantial spring or springs interposed between the application of power and the point where the power is applied on the ends of the heel bands; that is correct, isn't it? A. I would say yes.

XQ7 Referring to this model Exhibit 8-A, which is now before you, and I understand the same structure I am going to call attention to is in Model D, as I understand it there is a coiled spring in the housing that presses the plunger that presses upon the bight or applies force upon the bight of the heel band; is that right? A. That is a coiled spring, yes, sir.

XQ8 That is a coiled spring in this chamber that is closed by this threaded nut with a head on it? A. That is in the plunger and may be a little recess in that bight.

XQ9 Would you say that that is a desirable thing, to have a spring there, or an essential thing in the construction and operation of that piece of mechanism? A. I should say it is essential.

XQ10 Would you say if it was taken out that you would not have that construction as it is organized and operated upon as Exhibit 8-A? A. If you take those springs out I don't think it will operate properly.

Testimony of Augustus D. Willhauck (Resumed).

XQ11 Would you say it wouldn't work? A. It wouldn't last a heel seat properly.

XQ12 I understand that you say that these set screws on Model Exhibit 8-A mounted in little arms which are marked here as 533 and 532, according to the parts numbers, were put into the machine commercially about 1930? A. As near as I can judge. That may be an approximation but it was around that time.

THE COURT: Those are those—

MR. TOULMIN:—Two litte arms, Your Honor.

THE COURT: That is in the claim 19?

MR. TOULMIN: 21, Your Honor.

THE COURT: That is the loosely mounted member.

MR. LYMAN: Is that what he is talking about, these little things that are called set screws or adjusting screws, adjustable stops? I think there may be some confusion.

MR. TOULMIN: There is no confusion. I am referring to the arms 533 and 532 of Exhibit 8-A, in which there are two set screws, one in each arm, that they were discussing in the other room.

By Mr. Toulmin:

XQ13 As I understand it from you, Mr. Witness, they were put in about 1930? A. Approximately, yes.

THE COURT: They are referred to in claim 21 of the Hoyt patent.

MR. TOULMIN: That is right, sir. I am getting right at that. I think I can boil this thing down somewhat.

THE COURT: All right.

By Mr. Toulmin:

XQ14 In Model A in the other room, Exhibit 4, will you be good enough to tell us again just how the wipers and tackers cooperate throughout the complete cycle of the movement of the wipers, giving us in pretty simple language the sequence of those movements? A. Your wipers and tackers in the Model A machine, when you adjust your wipers the tackers are adjusted with them. When your machine operates, the tackers move in conjunction with the wipers.

XQ15 I want you to give me, as you did this morning, so it will be perfectly clear about it, the exact sequence of movements, that is, to help you, how many times the wipers move across in their wiping operation and what the tackers do at that same time, so we will have

a verbal picture of everything that happens in that machine as to the wiping. A. Just from the wiping point?

XQ16 Yes, that is right. Start from the beginning, in putting the shoe in place. A. First we put the shoe on the heel last pin. We have that rest on the arm extending on the front of the machine, which is to level the shoe in that direction (indicating); also a support for the last, with a tendency to rock right and left, that will allow you to level it up that way under the shoe rest. After you present that shoe and step on the right-hand treadle, the machine will start to move under power. The first thing that happens is the drawing in stroke, as I call it, which is the stroke that is going to draw your shoe and jack into the machine when power is applied. The next thing, your shoe rest is starting to press and the band is going to be closed about the heel, that is, it is in the process of closing, and it contacts it and the shoe is pushed down through it to the first wiper. There is a little lock there that drops into position through the operation of the band mechanism. Prior to that your wiper is retracted, that is, come off the shoe and backwardly, according to the construction of your cam track. Then your shoe is lifted, and the hold-down is lifted; due to the construction a little more pressure is going to be applied to the band to tighten it up, and your second wipe will take place. Your wipers retract and your tackers go back with them and move them, both on the first wipe with the tackers or the tackers with the wipers. They are retracted in the same manner.

XQ17 You are on the second wipe? A. I am explaining it. They do it on the first wipe. On the second wipe they do it the same way. They come over with the wipers and they retract with the wipers. On the other portion of that machine you have approximately a half-wipe, as we call it. Your wipers come in, your tackers come in with them, the machine comes to rest, the tacks are driven, the unit goes back, the wipers and tackers go back to their original starting position together, and the shoe is released from the band and the other mechanical means that are holding it in and the jack can be pulled out.

XQ18 You can be helpful to us if you will tell us what you mean on the third wipe by a half-wipe of the wipers.

THE COURT: That is on the third?

A. Two and a half wipes.

Testimony of Augustus D. Willhauck (Resumed).

MR. TOULMIN: That is on the third movment, Your Honor.

A. By a half-wipe I mean this. You wipe in, retract, wipe in—

By Mr. Toulmin:

XQ19 —That is two. A. And then you come in —as I say, we call it a half-wipe. It may be a little more than a half-wipe, you understand.

XQ20 But it is less than a full wipe? A. It is less than your full wipe, to get those tacks in ahead of the wipers and hold down the material that you have wiped.

MR. TOULMIN: That is what I was trying to explain to Your Honor in connection with Figure 7 of the McFeely patent in suit, and I would thank the court to mark this part of the specification which confirms the witness's statement as being correct. If you will look at page 11 of the specification, lines 85 on, in the right-hand column.

THE COURT: Yes, "coincidently."

MR. TOULMIN: Yes, down to the bottom of the page and a couple of lines or so on the next page; possibly you need an extra paragraph to complete the cycle on the next page, down to line 20. If you will mark along there "see Figure 7" it will help you get it correctly.

By Mr. Toulmin:

XQ21 Now, Mr. Witness, I am going to refer, as a short way of doing it, to the Model A machine with the two and a half wipes, just as a name for it, that is, we have two full strokes then we have an approximate half-stroke of the wiper, then we do the tacking. Do you find that sort of movement in this Exhibit 8-B? A. You find two complete wipes in 8-B.

XQ22 Do you find the third half-wipe? A. You do not.

XQ23 Do you find the third half-wipe with the movement a little further of the tackers so they can tack beyond the wipers on the final operation? A. What was your question Mr. Toulmin? (After question was read): I don't believe your tacker is moved further than the half-wipe on your Model A machine.

XQ24 Let us put it this way, then, so that we will understand each other. You don't deny, do you, in this Exhibit 8-B that you do not have tacking beyond the wiper? A. We do not have tacking beyond the edge of the wiper on that model.

Testimony of Augustus D. Willhauck (Resumed).

XQ25 It is true in 8-B that in every movement of the wiper the tacker moves just as far as the wiper and the wiper moves just as far as the tacker? That is correct, isn't it? A. They do.

XQ26 Do you find the same movement of tackers and wipers in this model Exhibit 8-B and Model A with respect to the fact that in Model A you have two wipes and a half-wipe and then a tacking operation? Do you find that in this model? A. You do not have two and a half wipes in this model, but two full wipes and a tacking. In your Model A you have two and a half wipes, but irrespective of whether the wipe is a half or not the tacker units move with the wiper and they stay a predetermined distance ahead of the wiper. In this unit your tacks are driven a predetermined distance from the edge of the wiper and the edge of the wiper is a little in advance of the tackers.

XQ27 As I understand it, Exhibit Model 8-B is a partial fragmentary portion of similar mechanism in the complete machine Exhibit 7 in the other room; is that correct? Exhibit 7 is the Model D machine. A. I don't remember. Is Exhibit 7 the Model D?

THE COURT: That is the newer machine.

A. That is a representation of the wiping and tacking and operating and adjusting means.

XQ28 So we can take it that what has been said by you on cross-examination about 8-B would equally apply to Exhibit 7, without asking you complete questions about that machine; is that right? A. I believe so.

XQ29 As I understand it, you are a designer, aren't you? A. yes.

XQ30 I take it you read drawings. A. Yes.

XQ31 Shoe machinery drawings are your specialty, aren't they? A. Well, yes, you could put it that way.

XQ32 Would you mind looking at this drawing of Figure 2 in the Hoyt patent, 1,508,394, and with special reference to the arms 240 and 242, and tell me if you find in that drawing the two screws that appear in the same arms in Exhibit 8-A? A. (After examining patent): Those screws are not in those arms in this patent drawing.

XQ33 Now I hand you a patent, No. 1,852,015, to J. C. Jorgensen, of April 5, 1932, filed April 16, 1929, and assigned on its face to the United Shoe Machinery Corporation, and I will ask you to look at the drawings of that patent and as an engineer tell me whether or not those drawings correctly represent Exhibit 8-B and also

Exhibit 7, the Model D machine in the other room. A. These patent drawings do not show all the refinements that are in this machine here (indicating Exhibit 8-B). It is undoubtedly the original attempt of your adjusting of your wipers and your operating through the connection of your wipers in the back and your adjustment of the wipers and tacking through the wipers.

XQ34 And it shows correctly, does it not, the arrangement—I call your attention to Figure 5, for instance, and Figure 2 and Figure 1—of the wipers and tackers as exemplified in Exhibit 8-B and the model D machine? A. (Witness examines patent).

MR. LYMAN: I don't know that the witness has ever seen this, Your Honor. I haven't either. It strikes me as quite immaterial.

MR. TOULMIN: It is a very vital thing.

MR. LYMAN: I don't see how it has the slightest materiality, but you are asking the witness in a hurry to answer whether certain patent drawings he has evidently never seen will answer an apparatus of this kind. It seems to me immaterial.

MR. TOULMIN: This is cross-examination.

THE COURT: Well, it is just a question if you are within the limits of cross-examination.

MR. TOULMIN: This witness has qualified as a machinery designer. He has produced this model. We want the witness to see it and tell us if this Exhibit 8-B and Exhibit 7 are built in accordance with a patent brought out years later than the patent in suit.

THE COURT: It is just a question of whether it is out of time or not.

MR. LYMAN: I object because it has nothing to do with the direct-examination.

THE COURT: You have a right to test his credibility if you want to do that, but it is purely a matter of defense.

MR. TOULMIN: It is not a matter of defense, Your Honor. If I brought this out through our own witness you could well say to me "why didn't you ask the man who produced these models, representing the United Shoe, who is their designer, if that model is embodied in Exhibit 8-B." We are giving him an opportunity to say whether it is or not. It has a vital bearing on this suit.

THE COURT: We are about three minutes from adjournment and it is a question of whether or not he would like to examine it. The only reason I raised that other point is it is just a question, as I see it, of keeping

the record straight and in sequence. That is the only thing I have in mind.

MR. LYMAN: That is the reason for the rule not extending cross-examination beyond the subject-matter of the direct.

MR. TOULMIN: I want to make it clear that—

THE COURT: —As I say, the right of cross-examination of course is practically without limit. There is only one limit; that is, the defense cannot prove their case by cross-examination and it is just a question if it goes to that point or not.

MR. TOULMIN: It is not proving our case, Your Honor. It is impeaching their case.

THE COURT: I say you have a perfect right to impeach this witness if you are laying a foundation for that purpose.

MR. LYMAN: You say you are doing this to impeach the credibility of this witness?

MR. TOULMIN: No, not impeaching his credibility.

THE COURT: It is the same thing. If you want to lay a foundation for impeaching this witness by this method—

MR. LYMAN: —My brother did not say that.

THE COURT: I thought he did.

MR. LYMAN: Does he intend by this method to lay a foundation for impeaching the credibility of this witness?

MR. TOULMIN: If this witness denies that that construction of that patent is in this construction here, and your company denies it, I intend to prove that it is, and in that sense I will impeach him.

THE COURT: I say you are within your rights if you are laying a foundation to impeach this witness later. It is out of time if, as I say, you are attempting at this time to prove your case.

MR. TOULMIN: I am not trying to prove my case.

THE COURT: If you are doing it for the purpose of laying a foundation to impeach this witness then he may proceed, with the right to examine this between now and morning.

MR. TOULMIN: That is what I suggest we do.

At this point an adjournment was taken until ten o'clock in the morning of the following day, Wednesday, January 18, 1939.

Testimony of Augustus D. Willhauck (Resumed).

MORNING SESSION,

WEDNESDAY, JANUARY 18, 1939.

Court met pursuant to adjournment, counsel being present on behalf of both parties.

Thereupon,

Augustus D. Willhauck

resumed the stand and testified further, as follows:

MR. TOULMIN: Last evening, Your Honor, I was about to ask a question about the patent to Jorgensen, you will recall. I have only one copy. May I hand it up so Your Honor can look at it? (Handing copy of patent to the court): It is in connection with this apparatus over here (indicating Exhibit 8-B), which is the Model D. I will have some photostats made.

By Mr. Toulmin:

XQ35 (After XQ34 was read): Will you answer that question? A. These drawings show the intent and the purpose of the model, as I have said. As I have also said, there are certain refinements not shown on this drawing that are in the model.

MR. TOULMIN: We ask this patent be marked as Exhibit A.

Thereupon the printed copy of patent to Jorgensen, No. 1,852,015, April 5, 1932, was marked for the purpose of identification **Defendant's Exhibit A.**

MR. TOULMIN: I would like to offer this in evidence at this time, Your Honor, instead of just for identification, unless you have some custom to the contrary.

THE COURT: Well, I know, but the point about it is it would be out of time. I don't see any reason why it can't be marked for identification and offered in your part of the case.

MR. LYMAN: While we are about it, Your Honor, and in order that Your Honor may understand what the patent shows, may I just explain it to you?

THE COURT: Yes.

MR. LYMAN: The Jorgensen patent, Your Honor, is directed to the specific mechanism in relation to the tacking instrument which enables the tack hammer, which you will see is slanting, to contact the head of the nail, which is also slanting as it is about to enter the

work in parallel lines. That is one feature that Jorgensen covers. Another is a provision of what the patent calls an upstanding flange on the wipers, which you will see in Figure 7 of the patent, which cooperates with the tacker elements to make some sort of a pocket that facilitates that particular delivery of the tack. A third provision are extensions on the wipers, which you see also in Figure 7, which are circular and concentric, one of which telescopes in the other and which aids in their motion.

THE COURT: Those are the three features.

MR. LYMAN: Those are the three things that that patent is directed to.

MR. TOULMIN: In this connection, Your Honor, I am relying upon that rule of law which I will not read to you because I have no cases here—I did not expect it to come up. It started in Kokomo Fence Machine Co. v. Kitselman, in the Supreme Court of the United States. There have been a whole series of cases, including our Court of Appeals, on the subject that where there is a patent of this sort embodied in the mechanism there is a presumption that there is a difference between the machines, that the machine of the second patent is presumptively different from the machine of the first patent. Our position here is this model here, Exhibit 8-B, and the Model D machine out there, embody these later improvements. They may have some few of the features of McFeely, but the commercial success and the differences are evidence of the fact that this picture of this mechanism here is contained literally in this Jorgensen patent. I don't want to argue that this morning, but want to tell you what the rule of law is, so you will not think—

MR. LYMAN: —Of course, a device involving more than one patent may involve one patent that covers the principle generally and another that covers improvement on the general principle, and the fact it has certain details that are patented by subsequent patents has no bearing one way or the other on showing—

THE COURT: —That is further along.

MR. LYMAN: Since Mr. Toulmin made that statement I wanted to tell you as we went along.

MR. TOULMIN: I think I can give you the best service by getting at the heart of these facts. If you will indulge me by going back to the exhibit room and taking the witness, I want to go over certain features of the machine so it will be perfectly clear to Your Honor. I

have done it myself and it has been very helpful to me and I think it will be helpful to the court.

Thereupon the court, counsel and witness went to the anteroom where the exhibits were located, and the following proceedings were there had:

MR. TOULMIN: Now, Your Honor, before I ask the witness questions I want you to know at what the questions are directed, so you will have your attention directed to it. I want to show you in the Model A machine, before which you are now sitting with the witness, the relative movement between the wipers and the tackers and the number of wipes that are made, and also the fact that the tackers are exposed for tacking on the last, third, halfwipe, as referred to by the witness. But prior to that time they are covered up in the two previous full wipes, so there is relative movement between the tackers and the wipers that becomes essential in connection with such claims as claim 6.

By Mr. Toulmin:

Q36 Now, Mr. Witness, will you tell us, before we demonstrate this Model A to the court, your understanding of how these wipers and tackers operate? That is, just relate to us the sequence of movements both of the tackers and the wipers, and whether they move relative to each other or not. Please give us a word picture of it first.

MR. LYMAN: In the Model A machine.

A. In the Model A machine, in the power stroke of the machine your wipers move forward and inwardly over the shoe at this particular portion here (indicating). These tackers are set so that at the time we wish to drive the tacks they will drive the tacks a predetermined distance from the edge of these wipers. Now, as the machine turns over, of course this tacker and this tacker (indicating), the unit, follow the back edge of the wiper. That is in the corner. Your center one or end one is doing the same thing because on the same slide. Your end ones follow in because they are fastened to this block here (indicating).

XQ37 I don't want to interrupt, but what you mean, you are putting your finger on what are the wipers. A. The wipers are here. On your second retraction your wiper moves rearwardly on the shoe to this point, then comes forward, and they follow through on the same motion. On approximately half-way—we term it half-way;

not an accurate definition but we term it half-way—your wipers will advance and stop, the tackers are in their position in relation to the edge of the wipers, and the tack is then driven by the tackers.

XQ38 Isn't it true that on the first wipe the wipers completely cover the ends of the tackers? A. They may. I have never noticed that particularly.

XQ39 At this point will you please operate the machine by hand slowly through the first wipe? A. (Witness complies with request of counsel.)

THE COURT: Is that the point you made right there?

XQ40 Have you completed the movement for the first wipe? A. Yes, sir.

MR. LYMAN: The judge asked is that the point you made.

MR. TOULMIN: I will ask him the question.

THE COURT: Is that the point you made, at the completion of the first wipe that the wipers—The point is whether or not the tacking device is slightly exposed and still beyond the wiper.

MR. TOULMIN: That is right, but there is a second question.

MR. LYMAN: Let the witness answer the question.

By Mr. Toulmin:

XQ41 Point out to His Honor the second thing. And the second thing is that there is relative movement between the tacker and the wiper during that operation. Mr. Witness, you were about to make a remark about the condition there. A. To me it seems that the tackers —and these are the things that control the tackers—are ahead of the wiper, are not covered.

XQ42 Did you see relative movement between the wipers and the tackers in this first wiping operation? A. I saw the wipers had a tendency to come over a trifle, due to their curvature and the part they take; and the tackers, they eventually land in a position which is clear of the edge of the wipers.

XQ43 But they move relatively to each other, do they not? A. You could term it they moved one against another, but not what I understand in the term in relation one to another. They tend to move inwardly, which is over the shoe.

XQ44 Will you operate the first wipe once more? Get back to the initial position.

MR. LYMAN: Does the court see where the wipers are?

Testimony of Augustus D. Willhauck (Resumed).

THE COURT: Oh, yes; I see they are right in front.

XQ45 Now start with another first wiping operation, to see if the wipers move relatively to the tackers. A. (Witness operates machine).

MR. TOULMIN: Your Honor will see how these have moved this way, that is, toward you, and inwardly, to the inward position.

By Mr. Toulmin:

XQ46 Now will you continue the operation through the second wipe? (After witness complied with request of counsel): I would like the court to observe that the wipers again move relatively to the tackers.

MR. LYMAN: Ask the witness whether that is so, rather than your own statement.

By Mr. Toulmin:

XQ47 Mr. Witness, did you see the wipers on the second wipe move towards us and inwardly with relation to the tackers? A. I did.

XQ48 Now will you move the machine through the third wipe, the so-called half-wipe? (After witness had operated machine): What is that click, Mr. Witness? A. That was the release of the driver.

XQ49 That is the point of tacking? A. That is the point of tacking.

XQ50 Will you look and see if the wipers have progressed as far in the third so-called half-wipe as they did in the previous two wipes, with respect to the tackers? A. They have sideways but not forward.

MR. TOULMIN: That is all with the witness.

Thereupon the court resumed the bench and the witness returned to the witness stand and testified further, as follows:

REDIRECT-EXAMINATION

By Mr. Hammett:

RDQ1 I would like to clear up one of the answers you gave us in cross-examination. Mr. Toulmin pointed on the model Plaintiff's Exhibit 8-A to the means for applying pressure to the corners of the band, and he pointed to two arms numbered 532 and 533; and he also pointed to the adjustable stops, screw threaded stops on those arms, and he asked you when those parts were first put into this machine, and I think you answered around 1930. To what did your answer refer? Did it refer to the

arms themselves, without any stops, or did it refer to the screw threaded adjustable stops? A. I thought that I was only referring to the adjusting screws. The arms have always been in that place.

RDQ2 That is, to your recollection, as long as you knew, the arms themselves without any screws— A. —Have been there.

RDQ3 —Have always been there as they are now. I am not sure whether my notes are correct on this point. Did you say, or did you not, that in the Model A machine the end tacker comes forward when the wiper plates are adjusted in the preliminary sidewise adjustment. Do you understand my question? A. No, I don't.

RDQ4 In the Model A machine when the wipers are preliminarily adjusted that movement, Your Honor, is only a swinging movement, not a forward movement, and the witness said that the side wipers follow it in. Does the end wiper back here—

MR. LYMAN: —That means at the rear.

RDQ5 —At the rear or closed end of the band move at that time? A. No, they do not.

RDQ6 There has been so much question raised as to whether those arms, parts 532 and 533, on Plaintiff's Exhibit 8-A, are loosely mounted or not I wonder if it wouldn't be worthwhile to loosen those springs sufficiently so you could move that plunger and move those arms. I wonder if you could do that. A. I will try it.

MR. TOULMIN: I desire the record to show that the witness is working upon the model Exhibit 8-A. He is now going to change its set-up. As I understood, it was set up for an operation, so what the court will see will be an abnormal condition.

RDQ7 What are you doing now to this model? A. I am simply changing the amount of tension placed on this arm by the adjustment of that screw. The way it is at present, we would not be able to apply power enough to overcome that spring. Maybe we won't when I get it out.

RDQ8 What would be the case in the present adjustment of the spring before you touched that nut? How about moving those arms in the ordinary power operation of the machine? A. They would move rearwardly.

RDQ9 What you are doing is loosening that spring so that human strength will be adequate? A. Exactly, and I am doubtful at the end of this if I will have strength enough to make that pull back.

Testimony of Augustus D. Willhauck (Resumed).

MR. HAMMETT: (After witness had made adjustment): Your Honor sees the movement of that arm. Witness moves arm 532 back and forth on pivot.

MR. TOULMIN: Without the spring in the mechanism which it normally is supposed to have.

THE COURT: Just so there is no mistake about it, the point is that with the power attached it is your contention that it would be the same as what you are now trying to do manually?

MR. LYMAN: Yes, Your Honor; probably not to as great an extent as that, because you would not probably distort that spring that far.

THE COURT: Now are those bolts in the back we were talking about yesterday that you said came in in 1930, they are still in there?

MR. LYMAN: They are still in there.

THE COURT: And that is what the patent refers to when it says "loosely mounted".

MR. LYMAN: Yes. That I am doing now, moving these arms, loosely mounted arms, so they can move.

THE COURT: Plaintiff's position is notwithstanding those two set screws it is still loosely mounted.

MR. LYMAN: Yes, Your Honor.

MR. TOULMIN: Our position is that placing those set screws there, it is not loosely mounted.

MR. HAMMETT: It was not the arms that came in in 1930.

THE COURT: No; it was the set screws.

By Mr. Hammett:

RDQ12 Can you put that nut back?

MR. LYMAN: Don't interrupt the examination to do it.

MR. HAMMETT: That is all, Your Honor.

THE COURT: Any further questions?

MR. TOULMIN: Nothing further, Your Honor.

Thereupon Mr. Willhauck retired from the stand and

George W. Presby,

called as a witness on behalf of plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Lyman:

Q1 What is your name? A. George W. Presby.

Q2 Your age? A. Sixty-three.

Q3 Your residence? A. 413 Lebanon Street, Melrose, Massachusetts.

Q4. You are employed by the United Shoe Machinery Corporation, plaintiff in this case? A. I am.

Q5 As a part of your responsibility and duty you keep charge of books showing the number of United Shoe Machinery Company machines which are out on lease or on shipment; is that correct? A. Yes, sir.

MR. TOULMIN: We object, Your Honor. If you are going into the question of commercial proof and commercial success, that is purely a rebuttal proposition and has nothing to do with the prima facie case. We are here on the third day and have not yet had the patent in suit explained by some witness compared with our machine, which is what plaintiff has to offer.

THE COURT: Isn't that a necessary element in their case?

MR. TOULMIN: No, your Honor. The courts have frequently held that any commercial success you have comes in rebuttal of their case, if they so need rebuttal of our contention, because commercial success is for the purpose of showing there is invention in those cases where there is a teeter-totter condition between it.

MR. LYMAN: I have had it held in various cases by the courts if you have anything to say about the history of your machine you should say it on the prima facie case, other courts say you can put it in at any time, but no courts in my experience have ever said it was improper on the prima facie case.

THE COURT: I think, strictly speaking, rebuttal calls only for evidence that will tend to explain the evidence offered by the defendant, and it would seem to me here that the commercial success is a necessary element in this case, and the ruling is that plaintiff may proceed at this time. You may have an exception.

MR. TOULMIN: It will be understood, Your Honor, that my objection goes to all questions on this subject, so I will not have to interrupt.

THE COURT: On the subject of commercial success.

By Mr. Lyman:

Q6 We are interested here in knowing how many of the United Shoe automatic heel seat laster machines, Types D and E, there are now in use in this country. Have you those figures obtained from your books? A. As of December 1, 1938, there were 941 Model D outstanding and 289 Model E out on lease as of that date.

MR. LYMAN: That is all.
MR. TOULMIN: That is all.

Thereupon Mr. Presby retired from the witness stand and

Charles T. Anderson,

called as a witness on behalf of plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Lyman:

Q1 Mr. Anderson, your full name, please? A. Charles T. Anderson.

Q2 Your age? A. Fifty-four.

Q3 And your residence? A. 876 Remington Road, Columbus, Ohio.

Q4 And your occupation? A. Assistant District Manager, United Shoe Machinery Corporation.

Q5 Where is your office? A. At 377 South High Street, Columbus, Ohio.

Q6 Do you know Mr. Graves Williams? A. I do.

Q7 Did you at one time see him to present a notice of infringement of the patents that are involved here? A. I did.

Q8 When was that? A. That was on January 28, 1936.

Q9 And where was it? A. In his office at Portsmouth, Ohio.

Q10 And what did you say to him? A. I told Graves that we had an opportunity to inspect the Moenus heel seat lasting machine in the factory in Milwaukee and that we found that this machine was an infringement on our patents and that we had sent a notice to the Albeko Company by our counsel, and at that moment I handed him a copy of the notice, along with the cut, the picture of the Moenus heel seat lasting machine.

MR. TOULMIN: If the Court please, I move the answer be stricken to that extent that it deals with the question of infringement of another machine not involved in here, and another potential defendant. It has no bearing upon the present case.

MR. LYMAN: This witness's testimony is going to the question of notice of infringement, Your Honor.

MR. TOULMIN: So far as getting notice to our company is concerned we not only admit that without dispute but we certainly don't want it to be involved with notice to somebody else.

MR. LYMAN: You admit notice of infringement by the witness?

MR. TOULMIN: We admit notice of infringement in the correspondence which we had with you after you made an inspection of our machine, which we gave voluntarily.

MR. LYMAN: You had notice of infringement at an earlier date.

MR. TOULMIN: If you confine it to that I have no objection. I still have a motion to that portion of his answer that went to infringement by others, as he alleged. It has nothing to do with this case.

THE COURT: Of course, it is just preliminary, and the purpose of this testimony is simply to show the date of notice of the infringement. Is that correct?

MR. LYMAN: That is correct.

By Mr. Lyman:

Q11 (After last question and answer were read): Is this document which I hand you a copy of the notice which you sent, which you handed me? A. (After examining document): Yes, sir.

> Counsel for plaintiff thereupon offered in evidence the document so identified by the witness, being carbon copy of a letter dated December 17, 1935, to Albeko Shoe Machinery Corporation, 710 Broadway, New York, unsigned, and the same is made part of this record as **Plaintiff's Exhibit No. 9.**

Q12 Did you tell Mr. Williams that if he had those machines he was infringing the patents? A. I did.

Q13 Did he say whether or not he had those machines at that time? A. At that time he said he did not know whether he had the machines in his factory or not.

MR. LYMAN: That will be all.

MR. TOULMIN: That is all.

Thereupon Mr. Anderson retired from the witness stand.

MR. LYMAN: If Your Honor please, we have here, produced by the defendant, one of its machines. We are now about to turn to the question of the operation of the defendant's machines and the construction of those machines, and I think that this would be an appropriate time to have a look at that machine. We have the witnesses who have seen the machine at their plant, as Your

Honor knows, which we can put on, but if we could use this machine—

THE COURT: —You want to have it in the hall?

MR. LYMAN: Yes, the machine in the hall. It would be convenient at this time, I think, to see that machine operate and see what it has, and then let the witness describe it.

MR. TOULMIN: Will Your Honor let me say for the record here, and for your information and opposing counsel's when we got the machine in here we had thought at first that we had 220-volt current in the hall. We find now we have only 110-volt, so we have put on a 110-volt motor with a speed change gear so we can run it at different speeds and see the motion. In order to last shoes it may be necessary to take it down to the basement, and I have a regular motor to put on if you wish to use it.

THE COURT: If that is necessary. I thought you would have your permission to get the 220 volt out of the panel.

MR. TOULMIN: We thought so at first. They say they don't have it on the panel.

THE COURT: We will do the best we can.

MR. TOULMIN: If it is necessary to do it we can move it down to the basement.

THE COURT: We can go through the motions without lasting shoes.

MR. TOULMIN: I have seen it go through the operation and it works all right.

MR. LYMAN: I think all that is necessary is to turn it over by hand, probably. I would also like to ask defendant's counsel if they have any drawings or photographs which will show the interior mechanism of that machine. By looking at it externally you can see what it is, you can see it has these adjusting means, and so on, but we also ought to have a showing of the interior construction, and I am asking counsel if they have any.

MR. TOULMIN: That is part of the task of plaintiff to produce his case. I produced the machine, the best evidence, voluntarily, and counsel will have to produce his case.

MR. LYMAN: Then it may be necessary, Your Honor, having seen the machine operate, to ask the defendant to dismantle enough of that machine so that we can see the constructions which are directly involved here.

MR. TOULMIN: We will be very happy to do that, and I have a mechanic here who is in charge of it.

MR. LYMAN: Before we do that, Mr. Hammett has another witness who just arrived.

MR. HAMMETT: It won't take five minutes.

Thereupon,

Jacob Jonas,

called as a witness on behalf of plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Hammett:

Q1 What is your name, please? A. Jacob Jonas.

Q2 What is your residence, please, Mr. Jonas? A. Washington Avenue, Bellevue, Kentucky.

Q3 How old are you? A. Sixty-one.

Q4 What is your occupation? A. Superintendent of the Krippendorf-Dittman Shoe Company factory.

Q5 Where is the Krippendorf-Dittman factory located? A. Seventh and North Street.

Q6 What city? A. Cincinnati.

Q7 How long have you been in the shoe business? A. Since October, 1893.

Q8 How long have you been with Krippendorf? A. Since October, 1893.

Q9 It appears from the evidence in this case that one of the United Shoe Machinery Corporation's Model A automatic heel seat lasting machines was installed in the factory of the Krippendorf-Dittman Company. Do you remember when that machine was installed, or do you remember that it was installed? A. Why, it was installed I would say approximately about twenty years ago.

Q10 How long did it stay there, approximately? A. All during the period when they made turned shoes. I imagine that was about twelve years.

Q11 How did the machine work? A. Why, the machine was—

MR. TOULMIN: —We object. That is asking an opinion. He can give the facts of its production.

THE COURT: Yes.

Q12 State the facts. A. Why, the machine supplied the great need at that particular time, particularly for nailed seats on turned shoes.

MR. TOULMIN: We move that be stricken. That is not responsive to the question.

THE COURT: The motion will be granted. You may state what the machine did.

Q13 You said the machine was there for about twelve years. During that time did you use it in your regular commercial production or not? A. Used it every day, every day we were working.

CROSS-EXAMINATION

By Mr. Toulmin:

XQ1 Mr. Jonas, do you have bed lasters in your plant? A. We do.

XQ2 How many? A. Oh, I would say about fifteen of them.

XQ3 How long have you had them, to your knowledge — just approximately? A. About Twenty-five years.

XQ4 Have they been satisfactory during that period? A. Oh, yes, for the work that they do.

XQ5 Still using them? A. Yes, still using them.

XQ6 Are you using them on heel lasting? A. Using them for heel lasting; we use them for welts.

XQ7 And on other shoes you use them on all kinds of shoes on toe lasting? A. On other shoes we only last the toes on them.

XQ8 Have you any adjustments on the wipers on those machines so you can adjust them to different sizes and types of shoes? A. The bed laster?

XQ9 Yes. A. We have different wipers for different types. In other words, for a welt shoe you would use a different type of wiper; for a wood heel lockstitch you would use another type.

XQ10 And any other type of wiper, can you adjust its position on the machine by a set screw or something? A. On the bed lasters?

XQ11 On the bed lasters. A. They can be adjusted.

XQ12 Do you have a heel band on those heel lasters? A. Sure you have a band.

XQ13 How is that band supported at the back? A. It is fastened to the frame with two pins that sets in there its adjustment, and it works on a principle something like a hinge.

XQ14 You mean it can be moved in and out, open or close its free ends? A. Open and close. It holds the shoe in position.

XQ15 Can you move the heel band adjusted lengthwise of the bed laster? A. Well, it moves with the carrier.

MR. TOULMIN: That is all.
MR. HAMMETT: That is all, Your Honor.

Thereupon Mr. Jonas retired from the witness stand.

At this point the court and counsel inspected the machine produced by defendant, which machine was located in a corridor outside the court room. At the direction of counsel the proceedings at the machine were not made a part of the record. At the conclusion of the inspection the court and counsel returned to the court room and the trial proceeded as follows:

MR. TOULMIN: I would like to make one comment before we start with the next witness. I notice this Exhibit 9, which I did not observe when it was offered, is not addressed to the defendant but to the Albeko Shoe Machinery Corporation. I want the record to show that, and I therefore necessarily want to object to this being a notice to us because it was addressed to some other company.

THE COURT: What do you say about that?

MR. LYMAN: Your Honor bears in mind that the witness's testimony was that he spoke to Mr. Williams and said "If you are using these Moenus machines you are infringing. Here is a copy of our notice of infringement to Albeko." Albeko was the firm that was offering these things for sale.

THE COURT: It speaks for itself.

MR. TOULMIN: So long as the record is clear.

MR. LYMAN: Yes.

Thereupon,

Thomas J. Ryan,

called as a witness on behalf of plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Lyman:

Q1 Mr. Ryan, what is your name? A. Thomas J. Ryan; age, forty-three.

Q2 Where do you live? A. Residence, 32 Rose Avenue, Marblehead, Massachusetts.

Q3 And what is your occupation? A. Patent attorney.

Q4 You are with the United Shoe Machinery Corporation? A. Yes, sir.

Q5 In the patent department of the United Shoe? A. In the patent department.

Q6 You are the man who has been primarily responsible for the preparations for this trial? A. Yes.

Q7 And consultation with the attorneys about the case? A. Yes.

Q8 How long have you been employed by the United Shoe? A. About twenty-two years.

Q9 Before you went into the patent department what did you do? A. For about twelve years I was a draftsman, tool and machine designer.

Q10 Then you went into the patent department? A. Yes, in 1928.

Q11 In connection with your duties you have become familiar, I take it, with these heel seat lasting machines? A. Yes, sir, that is part of the art that I handled.

Q12 You have examined one of the defendant's Moenus machines in the hall adjacent the court room this morning? A. Yes, sir.

Q13 You also examined one of their machines in the fall of 1935 at the Williams plant? A. 1936.

Q14 1936, at the Williams plant, did you not? A. Yes, sir; December.

Q15 December— A. —December 19, 1936.

Q16 You went there with Mr. Condon, George Condon; did you? A. Yes, sir.

Q17 For the purpose of examining the alleged infringing machines? A. Yes.

Q18 That was pursuant to an arrangement made between counsel? A. Yes, sir.

Q19 And you were shown one machine, were you? A. I was shown one machine.

Q20 Where was that machine located? A. That machine had been removed from the lasting room, as I was informed.

Q21 Informed by the Williams people? A. By the Williams people and Mr. Toulmin. It was in a small room at the rear of the main office on the first floor of the building.

Q22 By the way, who was present representing the Williams Company at that time? A. Mr. Graves Williams, Mr. Forrest Williams, and a Blaine Matthews.

Q23 Mr. Forrest Williams is the gentleman who is here in court? A. Yes. And Mr. Blaine Matthews, I believe—he at that time, at least, was an official of the Williams Company, and of course Mr. Toulmin was present, and I believe there was one or two other men came in and out of the room during our inspection.

Q24 You asked permission to see the other machines? A. Yes, sir, but that was refused by Mr. Toulmin.

Q25 These gentlemen told you they had four of these machines? A. Yes.

Q26 Did they say they were all alike? A. They said they were all alike.

Q27 I wish you would describe the operation of that machine, describe the machine in general as you saw it at the Williams plant, and also describe the machine that we have seen here this morning in the presence of the court. First describe the machine as you saw it at the Williams plant; then I will ask you to point out any differences between that machine and the machine which we saw this morning. And for the purposes of your explanation you may use this photograph which appears in this Moenus catalogue. Here is another picture. Your Honor, both of these show it, show the machine, and they will be useful in the witness explaining the differences and what he means.

MR. TOULMIN: If the court pleases, I want to say that this raises a fundamental issue of great importance to this defendant. The machines that we got from Moenus are machines that must stand here as they were delivered to us and have been offered. That is the issue here—not what the Moenus Company may have made or what other people may have shown by their catalogue. I understand from the representative of the Moenus Company here that they had other variations of this machine for supply of these catalogues to other countries and the United States of these other machines.

THE COURT: You mean the illustrated cuts here are not the same as the machine that they sold you?

MR. TOULMIN: I mean if I can examine them I would like to do so. I understand there are some differences. I want to be sure of it, because Your Honor wouldn't want to pass from one machine to another one.

THE COURT: No.

MR. TOULMIN: There shouldn't be any dispute about the machine that is before us. (After examining photographs): Your Honor, I can see from a hasty examination of this page, which has no number but the one open to you with a check mark on it, that this Moenus catalogue, or Moenus machine, rather, shown by the operator, is an entirely different one from that out in the hall or any one of our four machines.

THE COURT: Is it a heel seat lasting machine?

MR. TOULMIN: It is a heel seat lasting machine but a different heel seat laster, not our heel seat laster.

The construction is entirely different from ours. Are you marking these for identification?

MR. LYMAN: Yes.

The catalogue referred to, entitled "Moenus Maschinenfabrik A.-G., Frankfurt am Main Albeko Shoe Machinery Corp. 710 Broadway, New York, N. Y., was thereupon marked for the purpose of identification **Plaintiff's Exhibit No. 10.**

The page in Exhibit No. 10 particularly referred to by counsel, bearing a check mark and "c" in the corner, was marked for the purpose of identification **Exhibit No. 10-A.**

A circular consisting of four pages and bearing on the first one, among other things, "Maschinenfabrik Moenus A. G. Frankfurt A. M. No. 1224 Calzera Heel Seat Lasting Machine" was marked for the purpose of identification **Plaintiff's Exhibit No. 11.**

MR. LYMAN: May I call attention of the court to the fact that there are certain other photographs of this machine on five pages, which I am marking with pencil "a", "b", "c", "d" and "e", which are under the heading "The 'Calzera' automatic heel seat laster No. 1224." Plaintiff's Exhibit 11 for identification also is entitled "Calzera Heel Seat Lasting Maching with single tack drum No. 1224."

Thereupon the court and counsel for defendant examined the catalogues.

MR. LYMAN: I am putting in pencil the letters "a", "b", "c" and "d" on the four pages of Plaintiff's Exhibit 11, respectively.

MR. TOULMIN: Now, if the court pleases, we object to the introduction of these catalogues as showing the Moenus machine because the issue here is whether the machines as we actually received them and have had them and operated them in this country as set up, are the infringement, of which we have a sample here in the hall. Now, our particular objection to these catalogues, objection to these in connection with the illustration, I am advised these are quite recent catalogues. That is not correct.

MR. LYMAN: Did the reporter get that? You say that is not correct?

MR. TOULMIN: It is a 1934 catalogue. On page "c" the machine is an entirely different machine than the one we have.

THE COURT: Is it an entirely different machine, or is it substantially the same machine with the refinements?

MR. TOULMIN: No, Your Honor, it seems to me to be an entirely different machine.

THE COURT: The illustration you are looking at, is that a heel seat lasting machine?

MR. TOULMIN: Yes, it is a heel seat laster, and there are a lot of heel seat lasters, but this is not the machine in controversy here and I don't want to go to trial on a machine that is not in controversy, because that would be just a fruitless procedure.

On page "e" of this catalogue Exhibit 10 the construction there I see varies from the way that it has been operated and as existed in the Williams plant from the time that the machine was set up, according to my information. That is a matter of dispute for my brother here. He will have to put proof in on that. Otherwise, from a superficial glance at it, it looks like the same machine.

Now going to page "a" of Exhibit 11, this is an illustration of the machine, just a photograph. We have no objection to that, of course. On page "b" we object to that portion because it illustrates an entirely different machine as set up there. The rest of the two pages are devoted to descriptive matter I have not read and I will not stop to take the time now, Your Honor, because that would be of course just self-serving. There are no admissions against interest because the Moenus Company is not a party to this cause.

In view of those circumstances we object to the parts that I have had a chance to examine of these two catalogues. If plaintiff here wants to make out its case it has full opportunity to do so with the machine here. I have given them an inspection voluntarily and have given them ample opportunity to show our machine.

MR. LYMAN: These are the illustrations which we want to show, Your Honor.

THE COURT: Of course, it is your case, and if it is your position that those machines substantially represent the machine in issue, it is your case and will be received subject to objection by the defendant.

MR. TOULMIN: So Your Honor knows our position.

MR. LYMAN: They will be received in evidence?

THE COURT: Yes.

The catalogues so admitted in evidence are made part of this record as **Plaintiff's Exhibits Nos. 10, 10-A** and **11.**

By Mr. Lyman:

Q28 Will you tell us whether this machine out in the hall bears the number 1224 and whether it is a heel seat laster? A. Yes, it bears the number 1224 and is a heel seat laster.

THE COURT: The catalogue number is 1224 and the machine in the hall is 1224.

MR. TOULMIN: Manufacturers frequently have the same model and make variations in the model, and if you want us to admit that is 1224 and is referred to as 1224 from the Moenus Company, we will be happy to do so.

MR. LYMAN: You don't have to do that. It is right out in the hall.

MR. TOULMIN: We do admit it.

MR. LYMAN: You had better.

THE COURT: Just proceed.

By Mr. Lyman:

Q29 Taking, Mr. Ryan, these Exhibits 10 and 11, you may make such use of them as you may require in describing these machines. Now, if these do not represent the machine which you saw at the plant of the Williams Company or the machine in the hall, call attention as you go along to the respects in which they differ.

THE COURT: Wouldn't it be better now—It is understood from Mr. Ryan's statement in the hall that two of the claims were eliminated on his statement there, that the claims of infringement on upwiping were eliminated.

MR. LYMAN: I think, Your Honor, we are in a position where we are unable to prove a case of upwiping, and that therefore the claims relating to that feature, which are claims 68 and 71, may be disregarded from now on.

THE COURT: All right; that limits the claims in suit.

MR. LYMAN: That limits the claims in suit.

THE COURT: There were originally seven McFeely patent claims and two are now withdrawn; 68 and 71 are withdrawn, and that limits it to five claims on the McFeely patent and 19 and 21 on the Hoyt patent.

MR. LYMAN: Yes, Your Honor.

MR. TOULMIN: It is going to be the position of defendant, so they will know it right now, that claim 42 is a claim that calls for mechanism that performs upwiping and is a true upwiping claim. I want them to know that.

THE COURT: Claim 42 does not cover upwipe only; it includes it. Is that right?

MR. LYMAN: It includes a mechanism which might include upwipe but is not limited to upwipe.

THE COURT: 42 is not limited to upwipe but includes it.

MR. TOULMIN: If it includes it and we don't have it, then we don't infringe the claim.

THE COURT: That is a matter of argument later.

MR. TOULMIN: I want to make it clear we don't acquiesce. 68 and 71 are upwipe claims.

THE COURT: Just so we have no mistake about it, 42 is a claim which covers the general machine and includes upwiping, and it is the position of defendant that if it includes upwiping in 42 you don't infringe because 42 contains the upwiping feature.

MR. TOULMIN: That is right. Before the witness proceeds on this question I am going to make one objection and ask it run through all the testimony, just to save time. We object to the use of the Moenus catalogue on machines and features of machines that are not involved or shown or part of the four machines that are in the subject of the suit.

THE COURT: That is the reason I brought that up right before this question. It will be unnecessary for this witness to cover any features that are not at issue in the suit. His testimony will be limited to five claims on the McFeely patent and 19 and 21 on the Hoyt patent. The testimony will be limited to that. All right.

By Mr. Lyman:

Q30 Please go ahead and describe the machine which you saw at the Williams plant, the defendant's, the Moenus heel seat laster that you saw there. A. The heel seat lasting machine that I saw at the Williams factory had the name "Moenus" cast in the head frame and the model number, 1224, stamped on the machine. The serial number had been obliterated. The machine was provided with a pivoted shoe supporting jack, a U-shaped flexible leather heel band, wipers which were formed in three sections, a narrow central wiper and two curved side wipers. The machine was provided

with tackers and with a hold-down for controlling the heightwise position of the shoe in the machine. The shoe supporting jack comprised a jack frame pivotally connected at its lower end to the base of the machine, and vertically movable in that jack frame was a jack rod carrying at its upper end a heel band for engaging the last in its spindle hole at the heel end, and a toe rest engaging the top of the fore part of the shoe. When the shoe is initially at rest that jack is in a forwardly inclined position. Also carried by the jack frame is a hand lever, by means of which the operator may depress the jack post, the shoe and its supporting means, to permit the shoe to be moved into the machine under the hold-down.

Q31 Just talk a bit louder. A. In the operation of the machine, after the operator mounts a last and shoe on the shoe supporting means, he swings the jack rearwardly and by means of the hand lever depresses the jack, the shoe supporting means and the shoe, to permit the shoe to move under the hold-down. With the shoe under the hold-down he can release the hand lever to permit a spring that surrounds the jack post to move it upwardly to press the bottom face of the insole at the heel end against the hold-down, this occurring during the continued rearward movement of the jack to engage the heel end of the shoe with the U-shaped heel band.

With the shoe thus presented in the machine the power operation is started by depressing the treadle, whereupon, in the machine that I saw at the Williams factory, the hold-down was moved downwardly, then the U-shaped band was closed about the heel end of the last, and simultaneously with the closing movement imparted to the heel band the shoe supporting jack was pulled rearwardly to press the shoe harder against the heel band, and the jack post was raised to force the shoe harder against the hold-down. With the heel band closed and the shoe positioned by the hold-down below the plane of the wipers, the wipers were advanced and closed to lay the marginal portions of the upper materials around the heel end inwardly over the bottom face of the insole and were then retracted and opened. The hold-down was then raised and with it the jack and shoe, and at the same time a further closing movement was imparted to the heel band and a further rearward pull was exerted on the jack and a further upward pressure exerted on the jack post. After the upward movement of the hold-down, and with it of course

the last and shoe and the heel band, the wipers were advanced and closed a second time. At the end of the second advancing and closing movement of the wipers tacks were driven simultaneously around the heel end of the shoe, to fasten the over-wiped marginal portion of the upper to the insole. At the end of the tack-driving operation the heel band was opened, the hold-down was moved down to relieve the pressure on the wipers, and the wipers were opened and retracted and the parts returned to their initial starting positions.

Q32 With reference to that sequence of operations which you have now described as you saw it in the machine at the Portsmouth factory, is all that equally descriptive of the machine which you saw in the hall this morning, the defendant's machine here? A. Yes, sir.

MR. TOULMIN: Mr. Lyman, may I suggest we mark that machine out here for identification? I can't put it in evidence because it is our production machine, but if we ever want to use it again—

THE COURT: —Why not call it Exhibit 1224, and you will know what it is.

MR. LYMAN: I will mark that machine for identification, Your Honor, as Plaintiff's Exhibit 1224.

MR. TOULMIN: We would prefer to have that defendant's exhibit, because we don't want to give you control of our exhibit by any inference of that sort, because that is a production machine. We don't care how you mark it. We will have to take that machine back.

THE COURT: There is no question about that.

MR. LYMAN: No, Your Honor. We have to do something to get a record as to the arrangement for that machine.

THE COURT: Could we do this? Somebody assume responsibility for having a picture of that machine taken as it rests in the hall.

MR. LYMAN: We will do that. We also want some photographs that show the parts in disassembled condition. The mechanic is working on that now. We will assume responsibility of getting some photographs of those parts there, so we will have something.

THE COURT: When you take the photographs you can chalk those numbers on the machine and they will show.

MR. LYMAN: I don't understand what you mean.

THE COURT: Chalk that "1224" and that will tie in.

MR. TOULMIN: The other side call my attention to

the fact that there is a chalk mark on the side. It is Number 2 in the series.

MR. LYMAN: It is Number 2 of your four machines?

MR. TOULMIN: Yes. He states there is a chalk mark on it.

The defendant's machine was thereupon marked for the purpose of identification **Plaintiff's Exhibit No. 1224.**

By Mr. Lyman:

Q33 What was the motion imparted to the wipers in this machine in their closing movement? What sort of a motion do they have? A. They have an advancing and closing motion, that is, they move lengthwise of the shoe and at the same time they are swung toward each other laterally of the shoe.

Q34 And what is the relationship between the wipers in that machine and the tackers? A. The tackers are always maintained in predetermined relation to the wipers.

Q35 So that they move together with the wipers in that machine? A. They move together with the wipers during the preliminary adjustment of the wipers and also in the power operation of the machine.

Q36 And how is that accomplished in that machine? What is the inter-relationship between the parts by which that is made possible? A. In the defendant's machine, or the Moenus Model 1224, the wipers are carried by wiper carriers. They are fastened to wiper carriers held by screws. The bottom face of the wiper carrier is recessed to receive the wiper. On the top face of the wiper carrier are mounted the tackers, and these are secured to the wiper carrier by screws threaded into the wiper carriers.

Q37 What arrangements were there in that machine for adjusting the position of the wipers, and with them of the tackers, for a preliminary adjustment, if necessary? What are the arrangements? A. The machine is provided at the right-hand side with a rather large hand wheel which is fastened to the outer end of a laterally extending shaft, and on that shaft are two spiral gears meshing with two other spiral gears. On the rearward ends are forwardly extending threaded rods. Both the laterally extending shaft and the forwardly extending rods are supported in proper bearings. The threaded rods extend through rack bars that are slidably mounted in a top cover plate, which is also slidably

mounted in the head of the machine and carries a rearward extension and the cam roll for engaging the cam track between the end faces of the cam block. By rotation of this hand wheel I could rotate the threaded rods and move the rack bars either forwardly or rearwardly, and in response to the forward or rearward movement of the rack bars I noticed that the wipers were opened or closed so that merely by turning the hand wheel in one direction you could close the wipers rotating it; in the other direction you could close the wipers and thereby adjust them preliminarily for the size of shoes to be operated upon.

Q38 How were they operated, those wipers, in the power stroke of the machine? A. In the power operation of the machine this top cover plate was moved forwardly, the rack bars were stationary, and in response to that forward movement of the top cover plate the wipers were moved bodily forward and were also swung toward each other to close about the heel end of the shoe.

Q39 Will you explain the adjustment that there was in that machine for the heel band? A. Yes, sir; there was an adjustment in the machine for varying the position of the heel band lengthwise of the shoe with respect to the wipers and tackers, and also an adjustable unyielding link for adjusting the initial open position of the band. The heel band itself was supported at its forward ends by clips relatively to which it would slide lengthwise of the shoe, and at its forward ends, above the clips, there were pressure members that in the power operation of the machine would move toward each other to close the band. At its rear end the heel band that I saw in the machine at the Williams factory at its rear closed end had secured to it a slotted clip. At its rear closed end also the band is engaged by a back stop which is carried by an adjustable slide. Also mounted in that slide is a stud which had a threaded hole in it apparently to receive the screw for fastening the clip to the slide at its rear end—fastening the heel band to the slide at its rear end. Engaging what we term the corners of the heel band in the machine that I saw at the Williams factory were pressure plates apparently carried by loosely mounted arms and acted upon by spring-pressed plungers because we, Mr. Condon and I, were able to move the arms independently of each other against the resistance of a spring that acted on the plunger. The slide which carried the vertical stud which

was provided with a threaded hole at the rear closed end of the band, was geared to a laterally extending shaft, and on the other end of that shaft was a short hand wheel provided with a spring-operated pawl for engaging teeth on the segment to lock it into position. By movement of that hand lever you could move the slide forwardly and rearwardly in the machine and impart at least a forward movement to the heel band.

Q40 That is, that is the means for adjusting the fore and aft position of the heel band? A. Yes, sir.

Q41 They had such a means in defendant's machine? A. Yes, sir.

Q42 As to that screw, you say there was a space for a screw and clip? A. There was a threaded hole to receive the screw and a clip through which the body portion of the screw was extended.

MR. LYMAN: It was stated by Mr. Toulmin, Your Honor, in his opening statement that the machines had that screw originally.

THE COURT: He made that same statement out in the hall.

MR. TOULMIN: Yes.

MR. LYMAN: And it was used for a period of time with those screws in place.

MR. TOULMIN: And I shall prove it lasted only a short period of time, that that short period of time terminated a couple of years before this issue arose, when the screws dropped off finally and the machines were operated in that condition until you made the statement they could be restored, and then I had the clips sawed off before the suit was brought.

THE COURT: That is another matter.

MR. TOULMIN: I want to make that complete statement.

MR. LYMAN: For the present purposes it is sufficient to say that the machines were operated with that screw in place for some period of time by the defendant; is that correct?

MR. TOULMIN: Yes.

THE COURT: Also, there is in dispute the testimony between the witnesses you will produce and this witness as to that fact.

MR. LYMAN: Not as to that fact.

THE COURT: I mean as to that spring.

MR. LYMAN: As to another point.

THE COURT: Yes. All right.

By Mr. Lyman:

Q43 You have described then, I think, the method that was provided in that machine for the adjustment of the heel band. Now will you describe the arrangement by which that heel band was closed during the operation of the machine, power operation? A. In my inspection of the machine we turned it over several times by hand to time it. The mechanism for closing the heel band was controlled by a cam formed on the rear face of a cam block at the head of the machine.

Q44 By that you mean, Mr. Ryan, for my information, a cam path? A. Cam path.

Q45 Formed on the rear face of a cam? A. Yes.

Q46 That is the way I understand it better. Go ahead. A. Of course, I could not see in the machine the connections from a certain slide, dark slide in the machine, rearwardly to the cam path, but the slide having the rack teeth on it was apparently moved in the direction of the length of the shoe in response to the swinging of a bell crank lever pivotally connected on the outside at the left of the machine, and that bell crank lever had an upwardly extending arm carrying a cam roller engaging that cam path on the rear face of the block. I could, however, see that there were pivotally connected to the end face of the head casting bell crank levers having inwardly extending arms provided with gear teeth meshing with teeth formed on two rack bars, and that those bell crank levers had forwardly extending ends and the pressure members and clips at the forward end of the band.

Q47 And this heel band, I don't remember whether you stated that in the adjustment of the heel band it freely slides forward past its supporting means and past the pressure members that are directed to engage it? A. Yes.

Q48 Have you stated on these pressure members that operate on the forward ends of the heel band whether or not there was any yield in their movement? A. No yield in their movement at the forward ends?

Q49 At the forward ends. A. No yield in their movement.

Q50 And at the rear ends there were independent loosely mounted arms, each of them spring-pressed? A. Yes, sir.

Q51 In the machine as we examined it this morning in the hall we were told that the springs in those, which were present in the machine at the far end or bight of

the heel band for pressing those loosely mounted arms together had been removed. A. Yes, sir.

Q52 You could not verify that fact by an examination of the machine this morning? A. No, sir.

Q53 Now this machine this morning, the machine in the court room this morning has a heel band in it in which that clip that you have spoken of has been partially sawed off; is that correct? A. Yes, sir.

Q54 In that respect the machine that you examined this morning differs from the machine which you saw at the Williams plant? A. Yes, sir.

Q55 Will you tell us with reference to that machine that you saw at the Williams plant whether there was any means for adjusting the position of the hold-down or rest—well, the hold-down? A. Yes, sir. The machine had mechanism for varying the initial position of the hold-down and also mechanism for varying the extent of its movement heightwise of the shoe.

Q56 I will ask you first to explain what the mechanism was which adjusted the original position of the hold-down. A. In the Moenus machine there is a cam path formed on the front face of the cam block which we have previously referred to. Pivotally connected to the head casting is an arm carrying the cam roll, and connected to that arm at its forward end is a spring which is connected at its rearward end to a fixed pin, and tends to swing that arm rearwardly and hold the cam roller against this cam path, if permitted to do so, by an adjustable abutment. Pivotally connected to this arm which carries the cam roller is a forwardly extending sleeve threaded to receive a rod which extends forwardly through a rack bar geared to the hold-down by means of a laterally extending shaft in a yoke at the front of the machine. Fastened to the outer end of that rod is a small hand wheel, by means of which you can rotate the rod and thread it into or out of the sleeve and thereby vary the initial position of your hold-down. By adjustment of the abutment that engages the arm you can position the cam roller closer to or further away from the cam track or cam throw and thereby vary the extent of movement imparted to the hold-down at the beginning of the cycle of the machine.

Q57 Can you show His Honor on any of these photographs in either of these exhibits what you mean by that adjustable stop you have last been referring to? A. Yes, sir, it is shown in this cut (indicating).

MR. TOULMIN: Give the exhibit number.

THE COURT: That is there on the side.

MR. LYMAN: Witness refers to photograph which appears in Plaintiff's Exhibit 10 at the page marked "e". A. This is the abutment and I am pointing to the illustration on page "e".

By Mr. Lyman:

Q58 Use a pen and attach a letter to it. A. A. reference numeral?

Q59 Put a reference numeral on it. Call it "X". A. (Marking exhibit): I have applied the reference character "X" to the adjustable abutment shown on page "e" of plaintiff's Exhibit 10. By adjustment of that abutment you vary the position of your cam roller with respect to your first throw on the cam; that is, if you move it nearer the throw you take advantage of more of the throw than if you move it away from the throw, so you get a greater power.

THE COURT: The purpose of that was to limit the movement of the hold-down.

A. To vary it, to give it more or less movement downwardly at the beginning of the cycle. It may of course control its upward movement between the wipes.

Q60 In the machine that was brought here to court, and which we have marked for identification as Exhibit 1224, is that adjustable stop present or is it not? A. It is not.

Q61 Such a stop was present in the machine which you saw at the Williams factory. A. Yes, sir.

Q62 When you saw it there? A. Yes, sir.

Q63 And in this machine is there a screw threaded aperture corresponding to the position in which that adjustable stop would be? A. Yes, sir. There is another part present on this machine here that was not present on the machine—

THE COURT: That set screw?

A. That is that locking nut with the little pin in it.

Q64 Explain that on the record—The machine that is in the court house here? A. Yes. The machine in the court house has on the forwardly extending rod that forms a part of the hold-down operating mechanism a nut provided with a small upwardly extending pin. And that nut and pin were not on the machine, the Moenus machine that I inspected at the Williams factory.

Q65 On the machine here in the court house which defendant has produced, what has been substituted for that adjustable stop which you have marked "X" in the

photograph that is on page "e" of Plaintiff's Exhibit 10? A. Apparently a fixed stop that engages a shoulder on the arm and limits the backward movement. That can be adjusted permanently.

Q66 What was the means by which this machine was given its power operation, the machine that you saw at the Williams plant? A. It was individually motor driven.

Q67 Is that equally true of the machine which is here in the court house today, Exhibit 1224? A. Yes, this is driven by a motor through a gear reduction box.

MR. TOULMIN: So that there will be no unfair inference from that later, Your Honor, I want to repeat right here on the record that the reason it has a gear reduction box was when we got here there was not sufficient power to drive a large motor so we had to put on a gear reduction box.

MR. LYMAN: No point to that, Your Honor.

By Mr. Lyman:

Q69 To change to another subject,—first, how long did it take you to operate this defendant's machine? What is the cycle? A. A fraction of a second.

Q70 About the same as the case in the model of the United Shoe Machinery Company heel seat laster? A. Yes, sir.

Q71 To change to another subject, do you know whether the United Shoe Machinery Corporation laster has been sold in foreign countries? A. Yes, sir.

Q72 In what foreign countries? A. In the principal continental countries of Europe.

MR. TOULMIN: We object, Your Honor. We don't think that has anything to do with a United States patent and a United States question.

THE COURT: It goes back to that prior question about the commercial success.

Q73 In the principal countries of Europe? A. In the principal continental countries of Europe, South America, England.

Q74 Have you now stated all the differences that you have observed between the machine produced by defendants in the court room here, Exhibit 1224, and the machine that you saw at the defendant's plant at Portsmouth, defendant's factory at Portsmouth? A. I think I have.

Q75 The machine that is exhibited here, Exhibit 1224 has a serial number on it, has it not? A. Yes, sir, but I haven't memorized it.

Q76 But in that respect it differs from the machine which you saw at Portsmouth? A. Yes. I believe I stated that the serial number on the machine that I inspected at the Williams factory had been obliterated. I do not believe it is the same machine that is in the hall. There was another difference, Mr. Lyman.

Q77 All right. A. The machine that I inspected had the figure "4" painted on the front yoke; this one has the figure "2".

MR. LYMAN: If Your Honor please, I think that is all I have for this witness, but I should like, if it is a suitable time, to adjourn to look over my notes.

THE COURT: All right.

Thereupon a recess was taken until two o'clock in the afternoon of the same day, Wednesday, January 18, 1939.

AFTERNOON SESSION,

WEDNESDAY, JANUARY 18, 1939.

Court met pursuant to recess, counsel being present on behalf of both parties.

Thereupon,

Thomas J. Ryan,

resumed the stand and testified further, as follows:

By Mr. Lyman:

Q78 Mr. Ryan, can you show us on any of these illustrations in Plaintiff's Exhibits 10 and 11, those clips which you spoke of, which hold the heel band in defendant's machine, allowing it to slide with reference to the clips and the presser members? A. Yes. They are shown in the picture on page "d".

Q79 Page "d" of Plaintiff's Exhibit 10. A. These are the clips and the presser members that engage the band above its lower edge.

Q80 Apply the letter "c" to the clip, will you, in that photograph? A. (Witness marks photograph.)

Q81 And the letter "p" to the pressure member that you refer to. A. (Witness marks exhibit as directed.)

Q82 Those clips, the supporting clips, how do they engage the heel band? A. They have short upwardly extending portions engaging slots in the arms of the

band so that the band can slide in the clips as it is adjusted lengthwise of the shoe.

Q83 And on what portion of the heel band do these pressure members exercise their force? A. The upper portion, that is, the portion of the band above its lower edge, and from its top edge down a short distance on each side.

Q84 In the defendant's machine as you saw it at the Williams factory and also as you saw it in the court house this morning when, with relation to each other, do the closing movement of the heel band on the last and the downward depression movement of the hold-down take place? A. The hold-down is moved downwardly substantially at the beginning of the cycle of operations of the machine, and as that downward movement is completed the closing movement of the band commences. Those are produced by cam tracks or paths on the cam wheel.

Q85 That is, the cam surfaces determine the relationship? A. Yes, the cam surfaces determine the relation between the movements of the hold-down downwardly, the first downward movement of the hold-down and the closing movement of the heel band.

Q86 In fact, the cam surfaces determine the sequence of all of these power movements in the defendant's machine, do they? A. Yes, sir.

Q87 As the hold-down moves down does the jack simultaneously move down with it? A. Yes, sir.

Q88 And as the hold-down rises does the jack rise simultaneously with it? A. Yes, sir.

Q89 How does that happen in defendant's machine? A. Because there is in defendant's machine a spring that surrounds the vertically movable jack post in the jack frame. That spring permits the supporting means and the shoe to move down with the hold-down and it also acts to move the shoe up when the hold-down is moved up. Of course, in the power operation of the machine, after the hold-down completes its first downward movement, the cam acts through mechanism to compress that spring to cause it to force the shoe up against the hold-down. That compresses the spring and the shoe will move up with the hold-down, and between the overwiping movements of the wiper that mechanism is actuated again to force the shoe up to cause it to follow the hold-down when the hold-down is elevated between the wipes.

Testimony of Thomas J. Ryan (Resumed).

Q90 As to these two wiping movements, when the first one takes place what is the position of the last and the inner sole with reference to the plane of the wipers? A. The bottom face of the insole is below the plane of the wipers, below the bottom face of the wipers.

Q91 And that first movement of the wipers is what you call the "breaking"? A. "Breaking down" movement.

Q92 And when the second wiping movement takes place where is the bottom surface of the last with reference to the plane of the wipers? A. The bottom surface of the face of the insole is nearer, closer to the plane of the wipers.

Q93 Substantially in the plane? A. Substantially in the plane, allowing for the thickness of the materials between the bottom face of the insole and the face of the wiper, so you get a hard compacting pressure, friction wipe.

Q94 With reference to this matter of this adjustment for the heel band to enable it to be slid back and forth in its supports, you say that as you saw the machine in the defendant's factory and again this morning the machine here in the court house, there is no screw to connect the back end of the heel band with the slide which moves it forward; that had been removed? A. That had been removed.

Q95 Notwithstanding the removal of that screw or the sawing off of that clip, was the heel band supported in the machine? A. Yes, sir.

Q96 And that was true both of the machine which you saw at the Williams factory and of the machine in the court room this morning? A. Yes, sir.

Q97 And so far as the work producing feature of that adjustment was concerned did or did not the absence of that clip and that screw make any substantial difference in the operation? A. No difference as I saw it.

CROSS EXAMINATION

By Mr. Toulmin:

XQ1 Just tell us, Mr. Ryan, how the back of the heel band is supported in the machine out here in the hall and in the one that you saw down in Portsmouth when the clip is not connected to the actuating member in the back of the machine. A. It is supported by the back stop.

XQ2 What do you mean by the back stop? Can you point it out on the machine? A. Yes.

Testimony of Thomas J. Ryan (Resumed).

MR. TOULMIN: May we adjourn, Your Honor, to the—

THE COURT: —I understand just the point.

MR. TOULMIN: I would like to have him point it out, Your Honor, because I don't understand it myself, what he is referring to.

THE COURT: It is right here (indicating on Exhibit 8-A).

A. This is the part right here (indicating on Exhibit 8-A).

MR. TOULMIN: Just a minute. I will bring in the part which has been disassembled. If you will indulge me, Your Honor, I would like to have it before me. Meantime I will ask him another question.

THE COURT: All right.

By Mr. Toulmin:

XQ3 Mr. Ryan, you said when you made the visit to Portsmouth that you examined this machine we showed you for a serial number. As I understand it, you said that number had been obliterated or erased; is that correct? A. I said it had been obliterated.

XQ4 Where did you look for the serial number? A. I looked for the serial number alongside of the model number, that is, the same relation to the two numbers that are on this machine out here.

XQ5 You looked in the same place and on the present machine, the machine out here, the Number 4 machine— A. —Number 2.

XQ6 The Number 2 machine, that is on the left-hand side of the machine about eye height? A. I should say on the right hand.

XQ7 It depends on which way you face. Facing the machine it is on the right hand side.

XQ8 Did you make any note of that fact at that time upon which you base your present testimony that you found no serial number on that machine? A. No; no.

XQ9 What is the serial number of this machine today? Did you make a note of that one? A. No.

MR. TOULMIN: I would like the record to show, so we will get it, that it is 1224—that is the model number—87002.

MR. LYMAN: 87002 would be the serial number.

MR. TOULMIN: Yes, on this machine out here. I just sent a man out to get it and he says it is on there.

Testimony of Thomas J. Ryan (Resumed).

By Mr. Toulmin:

XQ10 Coming back to this support for the heel band, I have had brought into the court room from the machine in the hall of the defendant, the apparatus which I understand you say is the means for supporting the back of the heel band. (Addressing a gentleman in the court room): Will you bring me the heel band too, please, from out there? While we are waiting for the heel band, will you look at this back support and tell me if it is not a fact that it tapers downwardly and backwardly at the point where I place my finger? A. Yes.

XQ11 (After heel band was brought in): Will you place this heel band in position where you say it is supported by this back stop or back support? A. There are the marks of the back support, right there (indicating).

XQ12 Will you explain to the court how there can be any support, as there is no physical connection between that heel band and this back member, pressure member? A. Well, it engages for a part of its length (indicating). Even with the clip and spring removed that band stayed up in the proper heightwise relation to the wiper.

XQ13 As a matter of fact it stayed up because it was supported at both ends by the clips which you described at the forward end of the heel band; isn't that true? A. Obviously they help that.

XQ14 You will be willing to admit, won't you, that there is no physical way of supporting this heelband on the back stop except by some friction which you say exists; is that correct? A. No, I think there is—in addition to friction there is probably some contact of this band with this member or back support that prevents the band from sagging or dropping down at its rear closed end because of the positions or the position at which it is supported at its front end.

XQ15 There is no physical connection between these two members, the heel band and the back support, is there, other than whatever frictional engagement there may be? A. There is no physical connection?

XQ16 Yes. A. Well, the band isn't attached to the back stop.

XQ17 Therefore, there is no physical connection except the frictional engagement; is that correct? A. The physical connection is between my hand and the table (indicating).

XQ18 No, that is frictional; I am excepting that. Aside from friction, any pressure that may be against

there, there is no mechanical attachment of any sort, is there? A. I will say that the band is touched.

XQ19 And if any movement of that band is imparted in any way it is due to that partial engagement? A. No. I will say that the back stop prevents it from dropping because, as I see it, before this back end could drop it would have to be moved out of contact with that.

XQ20 You admit that the band is tapered downwardly? A. Yes.

XQ21 And laterally. And the inside of this smooth pressure member is tapered downwardly? A. Substantially the same as this.

XQ22 So there is no means of holding them except friction; is that right? A. Friction and contact.

XQ23 All right. Is it your position, Mr. Ryan, that that is the full equivalent o. having the physical connection? A. Yes.

MR. TOULMIN: I might say to Your Honor that the purpose of that question is this, since you have it in mind, that the first McFeely patent shows that sort of a free connection. We expect to prove that to you, so that the equivalency will be applied later.

By Mr. Toulmin:

XQ24 I was puzzled this morning, due to my ignorance in the matter, to find out what it was that you meant by the nut of some sort that had been added to the machine in the hall, which did not appear upon the machine that you saw at Portsmouth. Will you point out that nut to me, just verbally, if you can, so I can look at it? A. You know the threaded rod that extends forwardly at the left-hand side of the machine?

THE COURT: You can take that illustration.

A. It does not appear in the catalogue.

THE COURT: It is right below that spring portion, isn't it—right in front of that spring portion?

A. Yes, sir.

XQ25 Look at this page "e" I have,—His Honor is correct—of Exhibit 10 and point out what part you are referring to. A. The nut would be on this (indicating).

XQ26 Don't you find the nut there now to lock that in position found in that illustration? Let me call your attention to the nut just in front of that sleeve. A. Well, there appears to be a nut on there.

XQ27 Is that the nut that you said was missing on the Williams machine? A. Yes, sir.

Testimony of Thomas J. Ryan (Resumed).

XQ28 And that is the nut that you now find out there on our machine in the hall? A. It appears to be a similar nut with a little pin in it.

XQ29 Will you mark on there "Y" with a pen the nut that is found in that catalogue? A. (Witness marks exhibit.)

XQ30 I will hand you the nut that my associate has just brought from the machine, which you said was missing. It is marked 294-M, and will ask you if that is the nut you were referring to this morning. A. It appears to be the same nut.

XQ31 And that is the nut "Y" that you are referring to in this catalogue, is it? A. Except that it has this pin in it. I don't see the pin in the catalogue.

XQ32 On that cut it would be difficult to see it, wouldn't it (handing photograph to the court).

THE COURT: I know.

XQ33 Can you move the wipers in the machine in the hall of the defendant by hand longitudinally, or can you only move them longitudinally after adjustment and only by the power stroke? A. You can't move them bodily forward by hand adjustment.

XQ34 That is what I mean. They are only moved bodily forward by the application of power. A. By power operation of the machine. That is to say, you adjust them toward and from each other and you get some slight movement, I suppose, in the forward direction.

XQ35 The longitudinal movement is solely a power movement, isn't it? A. Yes, sir.

XQ36 Did you make any drawing, sketch, photograph or note at the time of your visit to the Williams plant which justifies you in saying that the plate on the side of the machine was not as it now appears in connection with the cam on the machine in the hall, but was rather like the "X" shown in this catalogue, Exhibit 10? Did you make any contemporaneous record at that time that you can refer to now to refresh your memory? A. Yes. I made a note at the Hotel Hurd on the afternoon that I inspected the machines, in which I set forth the differences—for my own benefit—between the machine I saw at the Williams plant and the machine that I inspected in Milwaukee at the factory of the Weinberg Shoe Company.

XQ37 Can you produce that note now? A. Yes.

XQ38 Let us have it. A. (Witness produces a notebook.)

Testimony of Thomas J. Ryan (Resumed).

XQ39 You have produced this note. Where in this note is there any statement that this stop "X" was on the machine and not the construction now on the machine in the hall? A. There isn't any. I say here that: "I inspected a Moenus heel seat laster today at factory of Williams Manufacturing Company. Except that the cam on rear face of cam block in head of machine did not operate mechanism to close heel band and mechanism to draw shoe more forcibly into the heel band and to press shoe more forcibly against heel band until after the hold-down had completed its first downward movement and screw connecting heel band at rear end to adjusting slide had been removed, the machine was identical in construction with one I saw at factory of Weinberg Shoe Company in Milwaukee, Wisconsin, last December. Mr. George Condon was with me this afternoon and inspected the machine."

MR. LYMAN: What is the date of that note, Mr. Ryan?

A. December 19, 1936, Portsmouth, Ohio.

XQ40 And there is no statement in that stating that this stop "X" was a stop in that machine rather than a stop such as you see out there on the machine in the hall; is that right? A. There is no statement in there.

MR. LYMAN: You can see that note, Your Honor.

THE COURT: He has read it. That is sufficient, I think.

XQ41 With reference to the small spring in the steel chamber at the bight of the heel band, that is forcing the respective plungers against the bight of the heel band in the defendant's machine in the hall, you observed today, I think, and were so advised, that there are no springs in that machine now, but also you were advised that the springs had been in the machine at the time you inspected the Williams plant. Assuming those two conditions to be true for the moment, I want to ask you this question, whether we understand you to mean that those springs are vital to the successful operation of a mechanism of that kind or not? What is the situation? A. They certainly are vital.

XQ42 And if the springs are omitted then one of the vital factors in that mechanism has been omitted; is that correct? A. Yes.

XQ43 You mentioned this morning something about the Model A machine, or Model D machine, rather, which I understand is the Exhibit 4 out here we have been

looking at yesterday, is that correct, or was it Model A? A. I made no statement about either the Model A or D.

XQ44 What was it you said about foreign sales this morning as to the McFeely machines? Didn't you make some statement on that subject? A. I said that many of them had been sold abroad, yes.

XQ45 What do you mean by the McFeely machine? Are you referring to Model A or Model D?

MR. LYMAN: Mr. Toulmin, if you are trying to lay a basis for asking this witness something about the Model A machine, go ahead; we are perfectly willing to have it.

MR. TOULMIN: Let us let the witness answer these questions, please.

MR. LYMAN: All right.

A. (After last question was read): Both.

By Mr. Toulmin:

XQ46 Will you tell us whether the McFeely patent in suit, which I understand you to say, and your side says, is represented by Model A, has its counterpart as a patent in any foreign country in which these foreign sales took place that you talk about? That is, did any foreign government grant you any patent on this subject-matter corresponding to the United States patent? A. Not the subject matter covered by the claims in issue.

XQ47 As a matter of fact, no patent at all was granted in any country outside of Canada, was it, on this second McFeely patent now in suit here? A. I think so, but I don't know, Mr. Toulmin.

XQ48 You don't know. Do you know whether any attempt was made to get foreign patents corresponding to the second McFeely patent, which is the second patent in suit, in foreign countries?

MR. LYMAN: I object.

THE COURT: Yes. I don't know that this has any bearing here.

MR. TOULMIN: It has a vital bearing for this reason, Your Honor, that over my objection this morning they went into foreign sales. I want to show there were no patents abroad, that this construction was not recognized by any foreign government.

THE COURT: The ruling this morning was it was essential for plaintiff to prove, among other things, the commercial value of this patent. The testimony was they had made sales in Europe, in England. I don't see here, even granting no application was made for a

foreign patent, how that would alter the testimony that they had made sales in Europe.

MR. TOULMIN: I will be very happy to show your Honor. It is for this reason. You don't have proof of commercial success attributable to a patent unless you have got a patent in the country in which it goes. If they have not had patents abroad and they have gone into foreign sales attributing a lot of value to this patent which doesn't exist, I have a right to examine this witness on that subject, to bring out that fact.

THE COURT: For instance, if they had a sale of a machine in one country, what would be the benefit of applying for a patent unless the machine itself did produce a successful operation? It only goes to the weight of the evidence, as I see it, as to whether this machine has been accepted and it was a commercial success. That is the only purpose for which this evidence was received this morning. I think here the fact that no application may have been made, or one had been made and perhaps the patent not granted, well, if we have to go this far the court will have to take judicial notice of the state of affairs of Europe, for one thing. The objection will be sustained.

MR. TOULMIN: All right, Your Honor. May I make one more observation before I complete that, so you will have my complete position? One of the evidences of commercial success of which the court will take notice is that the organization is an established organization, with a sales force of established ability. When you consider such things as that, they may negative anything attributable to the patent, because the courts say the commercial success may be due to that, if they have no patents, the success per se, commercial success not attributable to patents, and may be comparable with the business in the United States where they have a patent.

MR. LYMAN: Your Honor has the point? Is it a good machine or not.

MR. TOULMIN: It is more than that.

MR. LYMAN: But that it is a good machine and a valuable contribution is shown by the way it has been received here and all over the world. It doesn't make any difference whether there are foreign patents or not. The demand for it is because it is a good machine.

THE COURT: I say it goes to the weight. The fact that the machine is purchased abroad and used abroad is just an element indicating that it is a commercial success.

Testimony of Thomas J. Ryan (Resumed).

MR. TOULMIN: I am not contending with Your Honor's ruling but I want to make a fair statement.

THE COURT: We haven't the facilities for determining. We don't know whether some of these foreign governments even have a patent office in operation.

By Mr. Toulmin:

XQ49 Now one more question, Mr. Ryan. As I understand it, the machine out there in the hall has a couple of large springs in it that are interposed between the cam lever that works on the cam that furnishes the power and the bell crank arms or the links at the ends of those arms that press the outer ends of the heel bands; that is correct, isn't it? A. Yes. I believe there are two springs in your machine in that location.

XQ50 What is the purpose of those springs? A. Why, the purpose of those springs is to permit the bell crank levers and the other parts to be swung, to be operated to close the band. Then after the band is closed, if there is a further throw on the cam the springs will yield.

XQ51 And it is necessary to have such a yielding connection in order to prevent (a) the breaking of the machine and (b) in order to secure an effective operation. That is true? A. Well, it is usual to put such springs into machines of that sort.

XQ52 That is true, isn't it, it is necessary to have those springs. A. It is usual. I couldn't say—perhaps it was necessary.

XQ53 What difference is there, Mr. Ryan, between having these two heavy springs in the line of transmission of power which I have just described, which you have identified, and having springs on the link arms of the end of the bell crank arms adjacent the ends of the heel bands so far as a yielding pressure is concerned? Is there any difference in effect? A. Yes. Having them adjacent the front ends of the band is the wrong place for them.

XQ54 They are at the front end of the band in the McFeely patent in suit, aren't they? A. Yes.

XQ55 And they are in the rear end in the McFeely patent in suit, aren't they? A. Yes.

XQ56 McFeely has both springs, hasn't he? A. Yes.

XQ57 And Hoyt has only the spring in the back; is that right? A. That is right.

MR. TOULMIN: That is all.

THE COURT: Any further questions?
MR. LYMAN: Nothing more; thank you.

Thereupon Mr. Ryan retired from the witness stand and

Victor Cobb,

called as a witness on behalf of plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Lyman:

Q1 Your name, please? A. Victor Cobb.

Q2 Age? A. Fifty-three.

Q3 Where do you reside? A. At Wellesley, Massachusetts, 680 Washington Street.

Q4 What is your occupation? A. I am a patent lawyer at the head of the patent department, United Shoe Machinery Corporation.

Q5 With offices where? A. Boston, Massachusetts.

Q6 How long have you been in the patent department of the United Shoe Machinery Corporation? A. Nearly twenty years; since the first of May, 1919.

Q7 When did the fact that there was a Moenus machine, heel seat laster machine which might be an infringement of your company's patents come to the attention of the United Shoe Machinery Corporation for the first time?

MR. TOULMIN: We object, Your Honor. I don't think that is material to this issue. The machines are here. They were in existence before the suit was brought and when they discovered it has no bearing upon the issue that is to be determined by this court at this time.

MR. LYMAN: May I read defendant's answer? Paragraph 26: "Defendant avers and is advised and believes that large numbers of the type of machine which it employs, which it purchased in Germany, have been sold and put into use in the United States and Europe without any complaint or suit being filed by plaintiff herein and based upon such acquiescence by plaintiff defendant herein proceeded" etc.

THE COURT: That puts the question at issue, it seems.

MR. TOULMIN: We don't have to anticipate our case.

THE COURT: Well, it is just a question of whether or not they acquiesced. If they did acquiesce and waived then it becomes part of their case too.

MR. TOULMIN: I think that is strictly rebuttal proof.

THE COURT: The point about it is they have certain requirements to fulfill to permit them to prosecute an infringement case. Since it is put in issue it becomes a part of their case, it seems, in chief. So you may have an exception.

MR. TOULMIN: Yes, Your Honor.

By Mr. Lyman:

Q8 Will you answer the question, Mr. Cobb? A. I first heard of the existence of such a machine in this country in the autumn of 1935.

Q9 And what did you do about it?

MR. TOULMIN: May my objection stand to this testimony?

THE COURT: All the way through the subject.

A. I sent Mr. Ryan to—

MR. TOULMIN: —I object to this question, Your Honor.

Q10 I will shorten the matter. By whom was this Moenus machine being promoted in this country, according to the information which came to you? A. The Albeko Shoe Machinery Company.

MR. TOULMIN: The information came to him. That don't say when.

THE COURT: However the information came to you, when was it first brought to your attention?

A. It was first brought to my attention in the fall of 1935.

Q11 What did you do about it with reference to the Albeko Shoe Machinery Corporation?

MR. TOULMIN: We object, Your Honor. Albeko is not a party here.

THE COURT: What did he do with reference to the fact it was brought to his attention?

Q12 Go ahead. A. I sent Mr. Ryan to Milwaukee to inspect a machine, a Moenus heel seat laster machine.

Q13 And Mr. Ryan reported it to you? A. Mr. Ryan reported it to me.

MR. TOULMIN: We object.

THE COURT: You may have an exception.

Q14 What did you do next? A. Took it up with patent counsel, Fish, Richardson & Neave.

Q15 After that what did you do next? Did you instruct your patent counsel to send a notice of infringement to anybody? A. We instructed our patent counsel to send a notice of infringement to Albeko Shoe Machinery Corporation.

Q16 Just why did you have that sent to the Albeko Shoe Machinery Corporation?

MR. TOULMIN: We object.

THE COURT: This is merely cumulative of what we had this morning.

MR. LYMAN: It goes a little further, Your Honor. The notice that was sent is the one which was delivered, copy of which was delivered to—

THE COURT: —Mr. Williams.

MR. LYMAN: To Mr. Williams.

By Mr. Lyman:

Q17 Following that notice what happened? Following the sending of that notice of infringement to the Albeko Company what happened? A. We received a letter which came to my personal attention asking if we would receive and talk with Mr. Bruno Kath, of the Albeko Company.

Q18 Mr. Kath is here?

MR. TOULMIN: We object, Your Honor. Let them produce the correspondence.

THE COURT: I think since there is an objection we have sufficient to bring it right to the attention of the Williams Company, haven't we?

MR. LYMAN: Yes, but I want to go further, Your Honor. I want to show Mr. Bruno Kath, of the Moenus Company, who is here in court, came on to see Mr. Cobb. I told Your Honor in opening certain things. I told Your Honor that after this charge of infringement was made to the Albeko Company Mr. Kath, the Moenus representative, came out to see the United Shoe Machinery Corporation and said they had made a mistake, that they had overlooked the McFeely patent, and asked what could be done about it, asked if they could have a license; that the license was refused for good and sufficient reasons by the United Shoe Machinery Corporation; that thereafter arrangement was made by the Moenus Company—They said "Suppose we arrange to withdraw all the machines from this country, will that avoid your suing us?" and that the United Shoe Machinery Corporation said "O. K." to that; and that they then reported that they had offered to the Williams

Company to take these machines back. I submit that is all pertinent. That is the remaining testimony which I desire to elicit through this witness, with the full correspondence on the subject. It seems to me it is highly pertinent.

MR. TOULMIN: If the court pleases, this issue was before the court in Paragraph 9 of the bill of complaint, which avers these facts. I made a motion to strike and the motion was sustained as to Paragraph 9.

THE COURT: You mean that in the original bill of complaint this phase was pleaded?

MR. TOULMIN: Was pleaded, Paragraph 9. I made a motion to strike and it was stricken by the court under date of an order of July 21, 1937.

THE COURT: Well, I think here, in view of the statement that the manufacturer is not interested in this litigation, that—Well, how does it become relevant, since they are not a party here?

MR. LYMAN: It is relevant to the equities in this case, Your Honor.

THE COURT: If they were a co-defendant there would be no question about it.

MR. LYMAN: But here is a concern, the Williams Company, which, so far as any evidence in this case is concerned, may be only one of a dozen manufacturers who are using this Moenus equipment in this country. It may be, so far as the evidence is concerned, that the Moenus Company is operating in this country.

THE COURT: Aren't we speculating there?

MR. LYMAN: No, Your Honor. We want to prove that,—We want to show this court and any other court that ever has to pass upon this case that we sue the Williams Company for the reason that the Williams Company is the only concern that is using this kind of machine, that there are no others in this country, that we have to sue the Williams Company, that that is the issue.

THE COURT: I know, but I think we are going beyond the limits there. I think it must be plain we are going beyond the limits there. If you have any evidence, of course, showing the interest of the manufacturer and want to make them a co-defendant, whether you have the ability to do it or not, that would be one thing; but I don't see how, in view of the set-up of this case here, if Williams were defendant and made the opening statement that the manufacturer has no interest in this case, I don't see how it becomes relevant—certainly not as an admission against interest, because they are

not in the case. I can appreciate how it helps your case but still it must be relevant.

MR. LYMAN: It seems to me that if it helps our case then it is relevant.

THE COURT: It would help your case against the manufacturer.

MR. LYMAN: I am not relying, if Your Honor please —I may state on the record now that I am not relying upon the fact that the Moenus Company offered to remove these machines as being any evidence citable against this defendant on any issue of infringement or validity. I am simply trying to get this whole picture to you so the court may see how this case arose and the narrow limits within which it is concerned, and that we may avoid any implication we have picked upon some particular defendant when we might have sued a manufacturer.

THE COURT: But to accomplish that you would not like an erroneous ruling on the evidence in the case.

MR. LYMAN: Coupled with my statement now made on the record that that evidence is not to be used as proof or will not be relied upon as any evidence citable against this defendant on an issue of validity or infringement, it does seem to me it is pertinent.

THE COURT: No, I am afraid here it becomes—You see, defendant has the right to rely upon any conduct of his as being binding or not binding upon him, but he certainly cannot be bound by the statement of somebody who is not a party in interest here, and that there is no relation at all other than the fact that the defendant purchased these machines from him. I am satisfied on that. I don't think that we need to argue that matter because to me, as I say, the admissions of the Moenus Company would not be binding, on the showing of the case up to now, on the defendant, and I think it would be thoroughly erroneous if we receive any evidence on that subject.

MR. LYMAN: I presume that in order to save my rights I ought to make an offer of proof according to the rules.

THE COURT: That is all right. You dictate to the record what this witness would answer if he were allowed to answer. That is all right.

MR. LYMAN: I offer to prove through this witness that at a conference had—

MR. O'DONNELL: —Can't that be done later?

THE COURT: No, I think this is the time for counsel to proffer what the witness would say. I think we should have that in the record. If you have that in the form of a document why not have it identified and say that is what would be offered if it were permitted to be offered.

MR. LYMAN: I have some correspondence. I offer the correspondence with a brief statement of what the witness would say.

THE COURT: That is all right.

MR. LYMAN: I offer to prove through this witness that at a conference between him and Mr. Bruno Kath, of the Moenus Company, in February, 1936, the Moenus Company requested the United Shoe Machinery Company for a license under the patents in suit; that they were denied that license; that they then requested or asked if it would be satisfactory to the United Shoe Machinery Company if they would remove from the country all the machines of this character which they had made, and that the United Shoe Machinery Company replied that if they did that the United Shoe would not prosecute them for past infringement; that they agreed to do that and specifically agreed to remove the Williams machines; and that there was correspondence between the Moenus Company and the United Shoe Machinery Corporation regarding this subject, of which copies will be produced, and I will ask that they be marked for identification, all this under Rule 43 of the Rules of Procedure.

MR. TOULMIN: May I ask what you are going to proffer?

MR. LYMAN: Here is the correspondence.

The correspondence so produced by counsel for plaintiff was marked for the purpose of identification as follows:

Plaintiff's Exhibit No. 12-a, photostatic copy of a letter of January 30, 1936, from Albeko Shoe Machinery Corp. to United Shoe Machinery Corp.

Plaintiff's Exhibit No. 12-b, copy of letter of January 31, 1936, from United Shoe Machinery Corporation, Patent Department, by Victor Cobb, to Albeko Shoe Machinery Corporation.

Plaintiff's Exhibit No. 12-c, copy of letter of February 5, 1936, from United Shoe Machinery Corporation, Patent Department, by Victor Cobb, to Mr. Bruno Kath, Patent Engineer, Moenus Maschinenfabrik A. G., Frankfurt, A. M. Germany.

Plaintiff's Exhibits No. 12-d, photostatic copy of letter February 28, 1936, from Maschinenfabrik Moenus A. G. to United Shoe Machinery Co.

Plaintiff's Exhibits 12-e and 12-f, two pages of letter (copy) March 11, 1936, from United Shoe Machinery Corporation, Patent Department, by Victor Cobb, to Maschinenfabrik Moenus A. G.

Plaintiff's Exhibit No. 12-g, photostatic copy of letter (undated but bearing stamp as received April 22, 1936) from Maschinenfabrik Moenus A. G. to United Shoe Machinery Corporation.

Plaintiff's Exhibit 12-h, copy of letter July 2, 1936, from United Shoe Machinery Corporation, Patent Department by Victor Cobb to Maschinenfabrik Moenus A. G.

Plaintiff's Exhibit 12-i, photostatic copy of cablegram from Moenus to Harlow M. Davis, United Shoe Machinery Co. (stamped as received on July 20, 1936).

Plaintiff's Exhibit 12-j, letter July 20, 1936 from Maschinenfabrik Moenus A. G. to United Shoe Machinery Corporation. (Photostatic copy)

Plaintiff's Exhibit 12-k, photostatic copy letter July 28, 1936, from Maschinenfabrik Moenus to United Shoe Machinery Corporation.

Plaintiff's Exhibit 12-l, copy of letter March 26, 1937, from United Shoe Machinery Corporation, Patent Department by Victor Cobb to Maschinenfabrik Moenus.

Plaintiff's Exhibit 12-m, photostatic copy letter April 13, 1937, from Maschinenfabrik Moenus to United Shoe Machinery Co.

MR. LYMAN: The correspondence referred to is marked for identification Plaintiff's Exhibits 12-a to 12-m, inclusive, in accordance with Rule 43 of the Rules of Civil Procedure.

THE COURT: You haven't lost anything. You have reserved your exception and you have your proof in there, but the ruling is, to keep the record straight here, that for reasons of their own they may have offered to do this but that wouldn't, I say, prove one way or the other whether defendant was guilty in the instant case of infringement.

MR. LYMAN: Your Honor understands I did not offer it for that purpose.

THE COURT: I understand you are simply offering it to account for the fact you are not suing the manufacturer; is that right?

MR. LYMAN: That is right, and that there are none other of these machines in this country except what the Williams Company has.

THE COURT: Of course, that is not in issue in this case, in view of the fact you pleaded it originally and it was stricken from the record. So far as you are concerned, you have made your proffer.

MR. LYMAN: That saves our record.

By Mr. Lyman:

Q19 One more question, Mr. Cobb. Has there been any other infringement to your knowledge of these patents that we have here in suit by any one other than this Moenus?

MR. TOULMIN: I object.

THE COURT: The objection will be sustained.

MR. LYMAN: May I say, Your Honor, that that goes to the question of public acquiescence in the patents, which is always, I think, important.

THE COURT: I say on that subject the fact that you acted promptly in this instance covers that phase of the case.

MR. LYMAN: That is all, Mr. Cobb.

MR. TOULMIN: No cross-examination.

Thereupon Mr. Cobb retired from the witness stand.

MR. LYMAN: It is noted that the correspondence that was produced in connection with the offer to prove is marked Plaintiff's Exhibit 12 for identification. I would like, with your permission, to supply photostatic copies of those documents.

MR. TOULMIN: Very happy to have you do so.

The copies referred to were produced during the course of the trial of the cause, were substituted for the documents originally produced, and correspondingly marked.

Thereupon,

Peter C. McNulty,

called as a witness on behalf of plaintiff, having been first duly sworn, testified as follows:

Examined by Mr. Lyman:

Q1 Mr. McNulty, what is your name, please? A. Peter C. McNulty.

Q2 How old are you? A. Fifty-seven.

Q3 Where do you live? A. Milwaukee, Wisconsin.

Q4 You are a mechanical engineer by training, aren't you, Mr. McNulty? A. Yes, sir.

Q5 You have a degree in Mechanical Engineering from Vanderbilt University? A. They call it Bachelor of Engineering for a four-year course.

Q6 You have been engaged for a good many years now in engineering work in connection with patent litigation; is that correct? A. Since 1923 exclusively.

Q7 And that work has involved, I suppose, mainly the comparison of structures as regards patent questions? A. The preparation of charts and models.

Q8 Comparison of structures? A. Comparison of structures, testifying in mechanical engineering.

Q9 Mainly having to do with mechanical details, I presume? A. Yes, sir; one or two electrical.

Q10 You have had some experience in electrical as well as in mechanical engineering? A. Yes.

Q11 You have testified as a patent expert in many cases? A. Yes, sir.

Q12 You have made a careful study, have you, of the McFeely patent in suit No. 1,558,737, and also of the Hoyt patent in suit, No. 1,508,394? A. I have.

Q13 You are also familiar with the plaintiff's heel seat lasters, the Model A and the Model D? A. Yes, sir.

Q14 Seen them operate? A. I have seen the Model D operate. I have seen the Model A go through its cycle, but I have never seen it in commercial production in a shoe factory.

Q15 You have been at various shoe factories to see the Model D, which is the present model, in operation, haven't you? A. Yes, sir.

Q16 Several of them? A. Yes, sir.

Q17 At different times? A. Yes, sir.

Q18 Seen them operated on different kinds of shoes? A. I have seen them operated on women's shoes, the Model D. I have seen the Model E operating on men's shoes.

Q19 You have heard Mr. Ryan's testimony with reference to the defendant's machine that he saw at the Williams factory in Portsmouth? A. Yes, sir.

Q20 And you have examined this machine, defendant's machine, which is present here in the hall in the court house; you saw it this morning, did you? A. Yes, sir.

Q21 Now I would like you first to explain, if you will, the structure shown in the McFeely patent in suit using, if you have them, enlarged drawings of that construction and confining yourself as much as you can to the particular features with which we are concerned in this case. Will you do that? A. May I step down, Your Honor?

THE COURT: Yes.

A. I have enlarged the patent drawings and I have applied colors to the parts to enable them to be more closely followed in connection with the structure. I think it might be helpful if I put the two charts on the easels here.

THE COURT: All right.

A. (After placing two charts on easels): I will refer first to the McFeely patent in suit.

Q22 Before you start answering my question, Mr. McNulty, will you please state whether you have examined the Model A heel seat laster which is in evidence, Plaintiff's Exhibit 4, and whether it is made in accordance with the McFeely patent. A. I have examined it and it is in accordance with the McFeely patent in suit.

Q23 The drawings from the McFeely patent were very likely made from the McFeely structure?

MR. TOULMIN: We object.

THE COURT: Yes.

Q24 Go ahead and explain the McFeely patent. A. I have put on the easel Sheet 1 of the patent, which is a side view of the machine, showing the right-hand side of the machine as you stand facing the machine, and in that view I have applied a violet color to the members that adjust the wiper and tacker mechanism on the right-hand side of the machine. Your Honor will remember from an examination of the Exhibit 4, I believe it is, the Model A machine, that in that machine the wiper and tacker adjustments were individual, one for each side of the machine. I have also put a lead-line to the violet-colored parts and have put the words "Manual Adjustment for Wipers" on the chart. Could these be, or do you wish them to be marked?

THE COURT: I was going to suggest now that you mark them.

A. Each one as I refer to it?

THE COURT: Each one as you refer to it, and just check with the reporter as to the number and she can initial it, because you will want to use them in the Court of Appeals.

Thereupon counsel for plaintiff offered in evidence enlargements for the six sheets of patent No. 1,558,737 to McNely, and the same are made part of this record, marked as follows:

Plaintiff's Exhibit No. 13, Sheet 1.
Plaintiff's Exhibit No. 14, Sheet 5.
Plaintiff's Exhibit No. 15, Sheet 2.
Plaintiff's Exhibit No. 16, Sheet 3.
Plaintiff's Exhibit No. 17, Sheet 4.
Plaintiff's Exhibit No. 18, Sheet 6.

A. What I have been referring to so far has been marked Exhibit 13, Sheet 1 of the patent. I will now continue with reference to that exhibit. I have colored a sepia color the parts which control by hand the adjustment of the heel band mechanism as shown on this Exhibit 13; and I have put a lead-line to the colored part and the words "Manual Adjustment for heel band." I have applied a very light green color to the portion of the jack post upon which the shoe is mounted, and have put a lead-line and the word "Jack" at that point. I have also put a lead-line and the word "Shoe" leading to the shoe. I have applied a tan color to the tackers shown in this view and have put a lead-line and have put the word "Tackers" there. I have put a lead-line to the cam and marked it "Cam," which is shown near the right-hand side in the upper part of the chart. In the center track of the cam I have applied a dark blue color, and to the roller on the slide shown at the bottom I have also applied a dark blue color. This color again appears near the top portion of the sepia color of the hand adjustment for the heel band. This, as I will explain later, is the slide for moving the tackers and wipers by power.

I have applied to the front portion of the cam number which is shown as 174 an intermediate color, a darker green than on the jack, and have also applied the same color to the rod member associated with that cam, which appears at the point where I am extending my pointer on the chart. I have applied a dark brown color to the portions which are acted upon by the cam, as shown in this chart, for actuating the shoe member, and that is the jack member that holds the shoe after it is in position. These are a long lever with the figure 170 on it and its associated parts connecting down to the jack and on down again to near the bottom of the machine,

where the reference character 190 shows. Then at the bottom of the machine I have applied the light green color to the treadle 202 and have put the words "Jack Treadle" with a lead-line, indicating that when you step upon that treadle you are then acting on the same jack force at the top.

Now I would like to go to another one. In Sheet 2 of this patent which, enlarged, has been marked Exhibit 15, you find a sectional view through the machine somewhat like Figure 1 except cut in section and showing a longitudinal section through the machine. In this chart you will find the same tan color has been applied to the tackers and the word "Tackers" has been put on. You will find the light green color again appearing on the jack member, and I have applied the same color to the hold-down, 200, to which I have also put a lead-line and the words "Hold-Down." Just below the hold-down is a view showing the wiper plates, and I have put the words "Wiper Plates" with a lead-line and a light blue color showing where the wiper plates are. I am pointing to it now. I have again applied the dark green color to the portion that actuates the hold-down, beginning with the cam roller and cam bar that acts upon the roller and the arm upon which the roller is mounted. These are shown in dotted line in the center of the machine, but I colored them to show what their location is, also on the rod extending forwardly to the front part of the machine which carries a rack, to which the same color has been applied. This rack engages the pinion 210 to which the spindle has been applied, and this rack engages the hold-down 200. In the center of the cam member is the track that actuates the dark blue bars or the bars to which I have applied the dark blue color, that actuate the wipers through their power cycle, and I have applied a lead-line and the word "Cam". And the cam—Your Honor understands that this is simply a cylindrical cam with a number of tracks cut in, the center one being a box cam track. In the upper right-hand portion of Exhibit 15 is the hold-down, 200, enlarged, and I have put the word "Hold-Down" and applied the same color to it.

What I have said so far relates to the tackers, the means for holding the shoe, and the wiper plates and the parts for actuating the wiper plates. While I am on this chart I will explain the color application to the hold-down bars also, but before doing that I will say I have again applied the brown color to the parts connected with the cam, which in the power cycle will act

upon the jack which holds the shoe. I don't need to go through those in detail because they are clearly shown on the chart, but I would like to say that, in addition, the brown color has been applied to the slide member which actuates the parts, by power, for closing the heel band. And Your Honor will notice that by coloring the dotted parts acted upon by the cam you will see a bell crank lever which has an arcuate tooth portion at one end which engages a pinion which in turn has on the other end a smaller pinion that engages a slidable member on its top portion. This member has rack teeth on its bottom portion and those rack teeth in turn engage a bell crang lever having teeth on one of its arms, of which this lever 180 is the member which actuates the parts that act upon the jack, so that during the power cycle of the machine the jack is acted upon by the brown members and the heel band closing portion is acted upon by the brown members. I will show that better in another view later on. I have colored in this chart the heel band a very dark green and have applied the words and the lead-line to the part, calling it "Heel Band." I have also applied a dark red color to the adjustable member back of the heel band, which is acted upon by the sepia color in the other drawing for the manual adjustment of the heel band, and I have applied the dark red color to the connecting clip between the heel band and this back adjusting band.

THE COURT: That is the wing nut that was sawed off in the Williams machine?

A. Well, change "wing nut" to "clip". They apparently did not have a wing nut; they had another sort of a nut. But they did have a slotted clip there and they sawed that off.

THE COURT: I see.

A. At the center of the brown member which I explained had rack teeth on the top and bottom, you will see a red color. This red color is surrounded by a spring, and the brown parts transmit their power to the red member through the spring shown in this drawing; and at the forward end of the red member we will see in another view how it acts to drive the yellow parts in front of it, shown in this drawing.

Q25 What are the yellow parts, Mr. McNulty? A. The yellow parts are the parts associated with the heel band mechanism for actuating them under power. I did not intend to go into that part in detail until later.

Q26 I thought when you mentioned yellow parts it would be well to explain what that meant. A. I wanted to go through the wiper parts.

THE COURT: All of this testimony refers to—What is that?

A. Exhibit 15. I started out with that. I first referred to enlargement of Sheet 2, which was Exhibit 15, but this ties it up again. In the enlargement of Sheet 3 of the patent, which is Exhibit 16, we find a plan view of the parts which illustrate the wiper and tacker arrangement. I have taken the liberty on this exhibit of breaking away the tacker base part, 280, to illustrate the parts behind it, which are shown dotted in the patent. I have also done the same thing to other tacker parts at the end and to the front portion of the tacker portions at the corners, which enable us to show the wiper blades more clearly.

Q27 Mr. McNulty, just there you referred to certain wipers which you called "at the corners". Will you make it plain what you referred to as the corner wipers in that case? A. Part 288, shown at the two corners between the ends and the side wipers, are the parts that I am pointing to, and these are the parts that I referred to as the corner tackers.

Q28 Corner tackers I should have said, instead of corner wipers. A. Yes.

Q29 And I believe the tacker at the end of the bight is called the end tacker, is it, in the patent? A. Yes, sir.

Q30 And what are the tackers which are in front, at the front end of the cavity for the heel on either side? A. They are called side tackers, and you will find I have placed the words on the chart to bring that out.

Q31 Otherwise you might think when he spoke of "corner tackers" it would be these here (indicating). Go ahead, Mr. McNulty. A. By referring to the patent drawing, Your Honor will see that the parts broken away in the center of the tan portion are shown solid in the patent and the spring is shown dotted in the patent. I have simply broken the parts away and at the side tackers I have broken away as illustrated on the left side, and on the two corner tackers I have broken away along the wavy lines shown, that I am pointing to.

Figure 12 on this chart shows one of the tacker members 288, which are the corner tackers, and I have put the words "Corner Tackers" with a lead-line leading to them, on both sides, I have also put the side tackers

on both sides, with the lead-line and "Side Tackers." All of the tacker parts on this drawing have been colored brown. Beginning at the top of Figure 3 you will see in the center that number 226. I have put the words "Cam Roller" there, and I referred in another exhibit to the dark blue roller which is on the slide 224. I have marked this slide "Wiper Slide Block" and have colored it dark blue, as shown in this view. At its lower edge—I say "lower edge" merely because the chart is in a vertical position and we are looking at a plan view; but at its front end it carries rack teeth which engage with teeth in the arm of the bell crank lever on each side, and the rack teeth are on each side. The bell crank levers are colored dark blue, and on the right side I have put the words "Bell Crank Levers" with a lead-line leading to it. These levers are in engagement on their other ends by connection to gears 274. The left-hand one is shown. The right-hand one is cut off. The gears 274 engage the rack teeth on top of the member 276. This member has also been colored dark blue. So that during the power movement the power is transmitted through the dark blue parts, to the main slide and the connections into the bell crank levers, to the gears 274, and to this plate 276. I have put a light blue color on the wiper plates and have put lead lines and the word "Wipers" to indicate the wiper plates themselves. The wiper plates are pinned together and are capable of effecting a swinging movement with reference to the dark blue part by means of the arcuate guideways that I am pointing to with a pointer now.

Q3. Can you point to the pivot there? A. The pivot is right there (indicating). By means of the members connected to the outer ends of the wiper plates, which are links 284, which in turn are connected to a slide member 266, the wiper plates may be adjusted when the dark blue part is standing still. I have applied a violet color to the parts which relate to the movement between the dark blue and the wiper plates during this manual adjustment. You will notice over at the left-hand side I have put the words "Manual Adjustment for Wipers" with a lead-line, and the way that works is that at the outer end of the member 276 there is a rack. If that member is stationary and you rotate the pinion 268 on it by means of the hand actuated parts 265, you will drive forward the violet member 264 and in turn you will drive forward—that is, if it is rotated inwardly, you will drive inwardly the blue wiper blade on that

side of the machine. The base of the side tacker on that side, 280, is colored tan, and in it there is a slot. Also, there is a set-screw, or a clamping screw, which has no number, but its function is to unite the side tacker at that point to the violet member 264. I have applied what we call a bronze green color to that, to make it stand out. And the parts are maintained during all movements after the adjustment and during the adjustment by means of this shiny green member in the set-up relationship; that is, there is no movement between the base of the tacker member and the adjustable slide member 264, no relative movements between those two parts because of this member.

The corner tackers are associated with the wiper plates—and I am pointing now to the one on the left-hand side. They are associated with that one by means of a spring 290, which forces the tacker member inwardly; and I am pointing now to a plate 294 in Figure 12 which is at the bottom of the tacker member, and then I will point to that plate in Figure 3 to illustrate how it engages the back of the wiper blade so that movements of the wiper blade will be followed by the tacker member due to the backward motion of the wiper blade compressing the spring, and then in the opposite direction the spring moves to make it follow forward. The end wiper, the base of which shows the lead-line 232 and the cross-section part 234, does not adjust during the adjustment of the other wipers. As is easily seen from this drawing, if you actuate the violet parts with the dark blue part stationary, the tan tacker members at that side and that corner, that is, 280 and 288, will follow whatever movement is impressed upon the slide block 264, the link 284, and the wiper blade on that side, which does not seem to have a reference character there, in its preliminary adjustment. Then during the power movement of the machine the violet parts, the tan parts, and the dark blue parts will all move, but the end wiper will not move during the preliminary adjustment. Now, this end wiper is shown in section. I think I have referred to all of the figures on this chart except Figure 10. Before leaving it I will refer to Figure 10. At the bottom of the chart is a developed view of the cam drum, and I have applied colors to the cam rollers shown to indicate the tracks which act upon the same colors of the parts in other parts of the machine. In the center of the dark blue cam roller 226 is the one that actuates the wiper parts. At the one side of the cam, which

would be at the rear, the dark brown roller 121 is shown and as I explained in connection with the other exhibits what its functions are, I won't repeat it. At the forward portion of the cam another cam roller, 171, is also colored dark brown, and its functions in connection with the actuating of the heel band mechanism, both of them will be explained later in connection with another chart. At the extreme forward part of the cam I have applied the intermediate green color to the roller 221, the member which actuates the light green hold-down member in the machine. In case Your Honor is not familiar with the layout of a cam drum—

THE COURT: Oh, I think that seeing it on all the machines—

A. —You don't want me to explain it?

THE COURT: No.

A. The arrow shows the direction of rotation and the flat parts are the direction in which the parts stand still. When you come to a sloping portion of the cam it immediately begins to move and, as you will see where I am putting my pointer, from here to here I have gone through one movement of the wiper. There would be the inward movement and the retraction here, which gives your second wipe; and the retraction there gives the partial advance wipe, then a period of rest and a retraction. So that by following these curves on this chart you get the timed sequence of operation; and every member acted upon by the cam in one cycle of rotation is in timed relation in its movement to the other parts by means of the curved portions shown on the cam.

THE COURT: The half-wipe, that is shown right before the end.

A. Right there (indicating), and at a point like that the tacks will be driven. These have not been laid out in degrees but from the point at the left-hand to the extreme point at the right-hand end—

THE COURT: —That chart is supposed to cover a full cycle.

A. Yes, 360 degrees, as if you had split the cam, or put a piece of paper around it to mark these tracks and spread it flat—

THE COURT: That is the full cycle.

A. That is the full 360 degrees cycle, and you will understand in this machine one cycle of the machine handles all of the operations power operations, and then the machine stops. For the next operation of course you have to start it again.

In the chart of Exhibit 13 the pedal at the bottom is the one you step on.

THE COURT: That puts it into operation. That covers a full cycle and when it completes the cycle it automatically stops.

A. Yes, and during that movement—I will mention it but I won't go into it, because Mr. Lyman said to confine my talk to the portions at issue—Your Honor will note in the machine the cam which acted to trip the tackers. That is in the center there, 318 in Exhibit 15.

THE COURT: Yes.

A. But I did not think it necessary to go any further into that portion of it. That part receives its power from the same part that actuates the machine.

At this point a short recess was taken, after which Mr. McNulty resumed the stand and testified further, as follows:

By Mr. Lyman:

Q33 Go ahead, Mr. McNulty. A. I would like now to refer to Exhibit 14, and I think perhaps if I work from this easel over here it is easier for you to see. In Exhibit 14, which is an enlargement of Sheet 5 of this patent, Figure 5 is a general view of the parts which actuate the wipers, and underneath it is shown the heel band with the presser members and its levers. Figure 6 is a view of simply the heel band and the slide back of it, which is referred to as a rack slide, and I have put the words "Rack Slide" alongside of it. I have put "Heel Band" near the heel band, and put "Slotted Clip" with a lead-line leading to part 52, which is the clip near the bottom. I have applied the same colors, dark green to the heel band and dark red to the rack slide, that I have referred to before. In Figure 5 I have applied dark blue to the wiper slide, also to the wiper slide block, and also the words "Cam Roller" to the cam roller, with suitable lead-line. Then the wipers bear the number 254, and I put the word "Wiper" with a lead-line leading to that. And I have also applied the violet color to the connecting links 284, which connect with the side tacker section.

Section 8 is a view of a small portion of the tacking mechanism in the front end of the tacker, to which I applied the tan color, which we don't need to explain or go into.

In Figure 7 is shown the end tacker, and I put the words "End Tacker" there, and I applied the tan color

to the tacker itself, and it is the rear guide member which is guided in the slot shown in the block 224. I am pointing to that portion in Figure 5 now to illustrate where the parts that I am pointing to in Figure 7 would be located. The block 224 is shown and partly broken away, parts broken in section. I have applied a dark blue color to those parts. In the left side of this figure is the wiper plate 254, to which I have put the word "Wiper" and applied the light blue color.

Q34 Just a minute. The portion which you see at 254 in Figure 7 is this portion, the side portion of the wipers which you see in Figure 5? A. You can see from where I am pointing to, at the inner side of Figure 7, which would be this point in Figure 5 (indicating), there are no section lines, but back of that are section lines, which represent the part that I am pointing to and also represent—Well, I had better show it in Figure 5, because it has been broken away for the purpose of illustrating the relationship between the dark blue member and the light blue wiper plates by which they have their swinging movement. Your Honor can see the groove in the dark blue part engaged by a depending lip of the light blue part, and this is the pivot point I refer to, so if the dark blue part were stationary and the ends of the light blue part were actuated upon with an inward or outward movement, there would be the swinging movement of the wipers either when the dark blue was stationary and the violet members moved or when the dark blue was moved and the violet members and the tan members also moved to the side of the machine.

Now this end tacker, as shown in Figure 7, is driven by the dark blue part by means of a spring 238, which receives the movement of the dark blue part and transmits it through a pin 240 to the end tacker member 234. And the specification explains that there may be an obstruction that would occur some time when the advancing movement caused the end tacker to hit a piece of leather that was a little too hard, and consequently if it hit such an obstruction where the driving force was stronger than the spring 238, there would be something like a safety valve action there that would prevent damage to the part. But it says that in the normal operation the tacker will move with the slide and simply have a longitudinal movement backward and forward of the machine. So that up to the part I have now described you would have in this machine the positioning

of the shoe in the heel band and you would have means by which the wiper plates could be adjusted manually and you would also have an additional power actuated member to carry them through the cycle of closing the wipers and the tackers, being connected with the wipers as I have explained, would follow into the positions that they assume for tacking purposes. And the movement of these parts was illustrated to you on the Model A machine this morning and would be just what you saw in that machine.

I will further refer on this Exhibit 14 to the parts shown which relate to the heel band mechanism, and then I will go to another chart that will in detail show the heel band mechanism. We have at Figure 5 the parts to which I have applied a dark green color, which represent the heel band, and we have presser plates at the outer edges of the heel band and at the upper portion of which I have applied a dark orange color. These presser plates are pivoted members 84, which in turn are mounted upon a pin that extends down through a yellow block shown in this part (indicating), and at the bottom is the wing nut which you have seen several times in this case. I have applied the orange color to the wing nut and the presser member. Carried by this wing nut and pin is a supporting clip 74, to which I have applied a dark purple color. I pretty near ran out of colors on this, so I had to use shades of colors. And connected to press the sides of the heel band inwardly at the proper time are members that I will refer to on another sheet, but on this chart the lever 78 is shown, and I have applied a yellow color to it. It has a rod connected to it, 96, to which the yellow color is applied, and also a spring around it, 100, to which I have applied a lighter orange color.

May I now have Sheet 4, please? (After another drawing was placed on easel): Sheet 4 has been enlarged and is Exhibit 17. This sheet is a section through the machine in the horizontal plane so that you can look down onto the parts that actuat the heel band mechanism, and if you will refer back for a minute to Exhibit 15, Your Honor will see, where I am placing my pointer, that if we cut through the machine at that point and look down on it—

THE COURT: —Like we have here (indicating Exhibits 8-a and 8-b).

A. Yes—we will begin to see what is shown by Sheet 4. Now in this view (indicating Exhibit 17) I

have applied the same colors that I have heretofore described, and I will refer to the legends that I added onto the patent drawings simply to make it a matter of record. At the top the power driven slide for the heel bands is the dark brown slide member 130. That member, if Your Honor will remember, is the member that I said, had top and bottom rack teeth in it, shown in Figure 1, and the member 120 is the part that leads back to the cam that actuates the parts under power. And the power comes through the brown parts to this dotted spring member in the center and then is transmitted to the red member which I have marked, with a lead-line, "Operating Member," to the part 134. Now in the wiper parts the forward movement of the slide block actuates the wiper members through its power cycle. In this one, if you follow through, we will see that movement rearwardly of the part, the dark brown part, would compress the spring on the stud, would drive the red nut backward, would drive the red operating member backward, and would bring with it these side rack members 136, which I have colored yellow, and they, being connected through the teeth to the bell crank levers 138, would turn those levers in a counterclockwise direction and would produce a motion inwardly at the outer end of the heel band.

Q35 Turn the left one in a counterclockwise direction and the right one in a clockwise direction. A. Correct. I happen to be on the left side of the exhibit. And both of them are marked—the one on the right side is not marked but it would, being on the opposite side, rotate in the opposite direction. So that you would get an inward movement at each side of the heel band. Your Honor will see again the lever 78 I referred to in the previous exhibit, which would be 16, and this rod 96 with the spring around it. And in this patent you not only have the spring in the slide member 130 but you have additional springs adjacent the forward ends of the heel band and the power is transmitted to the spring through a member that I have colored a lighter orange, so that there is a yielding application of power in the closing of this band. The patent describes the member 134 as the equalizing member, so that if one side of the band should come against the shoe first, the motion would continue until the other side also engaged the shoe, and then the springs would be sufficiently compressed so that when they were finally compressed there would be a locking of the members in

place by means of parts shown.

THE COURT: That unyielding part is not shown there, is it?

A. It is not, but during the closing—You are talking about the unyielding part in the Hoyt patent?

THE COURT: Yes.

A. We will come to that later.

THE COURT: I say it is not shown. There is just a faint outline of it there.

A. During the application of power up to its maximum stroke you have the yielding of this spring, but this patent describes that when this—

THE COURT: —That is before the unyielding comes into play?

A. It exemplifies a lock here.

THE COURT: Yes, I understand. I was just trying to get how that works.

MR. LYMAN: Hoyt substituted an unyielding connection there (indicating on Exhibit 8-A).

MR. TOULMIN: This is Hoyt, Your Honor (indicating Exhibit 8-A).

THE COURT: This spring in here.

A. I see. In Exhibit 8-A the witness yesterday explained that there was a spring which would enable them to have the motion that I am now describing by actuating one side, so that if in the opening of the band something should stick or hit the wiper it wouldn't break the part. That is why this movement is provided, but in the closing pressure, to close the band, you would not have the spring in Exhibit 8-A. That is the spring member 100 in Exhibit 17. What I wanted to go ahead and explain is that at the end of the closing movement in the McFeely patent he provides means to lock those members during the wiping action. I didn't apply any color to them—I didn't have any colors left; but they show as white. The block is 144, and the little pointed pivoted detents that come down in connection with them, which are spring pressed up against the arm 78, they automatically lock until the machine has driven its tacks, and then they unlock.

We will first finish the reference characters that I have added, or the names that I have added onto this patent drawing. I have put "Manual Adjustment for Heel Band" for the handle to part 92, and to the shaft 86 which leads into the dark red rack slide at the center, which is the supporting member for the parts that we referred to in another view. In fact, it is the member I

am pointing to in Figure 6 of the patent as shown on Exhibit 14. So that if you adjust this member you get the "fore and aft", as Mr. Lyman refers to it, movement of the heel band part preliminary to the power movement. I have applied "Pressure member" to one side of the orange pressure members at the side of the heel band. I have applied the word "Jack" to the light green parts and "Toe Pad" to the toe pad parts of the jack, as shown in the plan view of this drawing of this exhibit. I think that is all the legends that have been put onto this chart.

During the adjustment of the part 64 we find that the heel band is permitted to slide relative to the presser members at the upper forward edges of the heel band and to the supporting clips at the bottom of the heel band. The patent shows the clip 74 as the U-shaped member which comes around and is apparently in Exhibit 14 at the inside lower edge of the heel band. So that here we have in the heel band portion a manual adjustment for the heel band by permitting the edges of the band to slide with reference to the presser members and the forward supporting clips during the preliminary adjustment for different sizes of shoes. And then after that we have a power movement which closes the heel band and holds it during the other power movements. And we have had the cycles of this machine so completely explained in this suit I don't think it is necessary to take time to go into that again.

THE COURT: No.

A. Because I don't understand there is any dispute about it.

MR. LYMAN: He will tell you later.

A. If I don't describe it he can't tell me.

MR. TOULMIN: You go ahead and testify, Mr. McNulty.

A. All right. I didn't want to go into anything that had been gone into too far. Before I go to Figure 6 we might sum up the two groups of mechanisms that we have referred to before by saying that in the tackers and wipers we have in combination with the supporting means for the shoe the preliminary adjustment of the wipers, we have a subsequent power movement over the shoe in which, both the preliminary adjustment and the power movement, the tackers are carried in such position that when the wipers move they move all except the rear tacker in that machine. It will move in the power movement but not in the preliminary adjustment move-

ment. And we have the means for maintaining the tackers and the wipers in their position as secured by means of the shiny green unnumbered nut that holds the side tacker in place and by means of the spring member that holds the end tackers in place, and an adjusting nut at the back of it which I did not refer to but which is clearly shown in one of the figures.

In the heel band mechanism we have the preliminary manual adjustment of the heel band for sizes, during which adjustment the heel band is free to move with reference to the pressing members and to the supporting clips; and then we have the power movement which, by power, applies the yielding pressure to the side of the heel band during its closing movement.

(Placing another drawing before the court): Now may we refer to Sheet 6 of this patent? Sheet 6 has been enlarged and marked Exhibit 18. It is the view of the parts without the supporting mechanism of the machine shown, and in the upper left-hand corner we have the cam drum, and on this one I have put the words "Hold Down" and a lead line. That is the hold-down (indicating), to which I have applied the light green color. I have put "Adjustment to Vary Vertical Movement of Hold Down" to a nut bearing against the lug 208, and I have applied a similar color to the rod on which it is mounted, which extends back to the arm 220, which I have colored an intermediate green color. Its roller 221 is shown engaging the cam track 274, and I have applied the same color to that part. I have also applied that same color to the rod 218 which has a rack on its front end engaging a pinion 214 on a shaft 212 which has a pinion 210 on it which engages a bar 216. It is this mechanism that is vertically moved when that part of the cam is actuated—Your Honor will see that, the dark brown part of the cam 121—which is the bell crank lever 120, which has a rack on it engaging a pinion 124, which in turn engages a pinion 128, and actuates the dark brown slide 130 that has a rack on its top side. I have applied the dark brown color to all of these parts.

THE COURT: Those are all movable parts without the support.

A. These parts have just been put into their operative connections to illustrate more correctly how the power is put through the machine.

MR. TOULMIN: Something like a skeleton.

A. Something like a phantom view in a photograph, where they retouch it and make parts stand out

and the stationary part is very light. You will see on the bottom of the slide 130 a rack which engages a tooth rack on the arm of the lever 180, and as you follow down through that—I have applied a dark brown color to all of these parts—you will see how the power is transmitted to finally a shaft 162 that has a pinion, that is, a pawl and ratchet teeth on it, so that by means of turning that shaft you may actuate a slide bar 160 with rack teeth in the bottom of it, and that outer end of the rack bar clamps onto the jack post; and you have heard several times how the power takes hold of the jack and pulls it in and puts pressure on the back of the band: Well, this is the part through which it puts the pressure on the back of the band, this slide bar 160. Then you will see on the same end of the lever 180 a vertical rod 190 that I am pointing to which, through a yoke and a spring transmits its power on down, and then by causing the parts to open it picks up again in the lower portion of the jack frame and continues down to actuate a rack through a shaft 152 with pinion teeth on it. 194 actuates a rack 154 on the parts that I have applied the light green color to leading up to the jack post 148. And you have heard in the previous description how the jack post is not only pulled in by power but lifted by power, and this gives you a visible illustration of how that lifting effect is obtained.

This illustration also shows the shoe and last, in which the shoe has been broken away to illustrate the upper portion of the jack with a pin on it, which the last sits on, and also with the hold-down 200 is engaged with the outer part of the insole to firmly hold the shoe and position it in its proper position. So that this movement of the shoe with reference to the vertical plane in which the wipers act is under control by means of the parts that I have just referred to, and in this Exhibit 18 I have applied a dark green color to the hold-down portion as shown. I have applied an orange color to the presser plates at the upper outer ends, that is, the upper parts of the outer ends of the hold-down on each side; I have applied a yellow color to the portion of the lever showing the tacks upon the presser members; and I have applied a purple color to the clip shown. I have also applied a red color to the members 70 surrounding the heel band which are shown in Figure 6, Exhibit 14, within the spring member 68. This is a flat spring, arcuate in form, which is secured to the part 64, and inside of it are these pads 70, which are shown in

Exhibit 18 that I am pointing to, surrounding the upper back side of the heel band, also in Exhibit 14 between the light blue presser plates and the dark green pad. Now I will mention the upwipe feature briefly, merely as one of the functions—

Q36 —The upwipe claims being out, I don't believe it is necessary, unless the court wishes it.

THE COURT: Those two are out of it.

A. They are out. I merely wanted as part of my illustration to indicate that in the vertical movement of the shoe in reference to the horizontal plane of the wipers the silver parts shown in this drawing are adjusted, and one of the reasons for it in the patent was to vary the extent of vertical movement, and one of those variations would be in connection with the upwiping. But in order to initially position the shoe such an adjustment might be used in connection with an additional adjustment on the rod 218. And again, in the chart where the development of the cam drum is shown at the bottom, Exhibit 16, Sheet 3 (placing another chart on easel), I am pointing now to the intermediate green roller 221 at the bottom of Figure 10, and when the curve moves the roller downwardly as I am doing, the hold-down would move downwardly into the machine. Then you notice the flat part, and during that flat part, if you go into the dark blue cam track, you will see that as the hold-down moves downwardly the dark blue wiper portion is in its cycle of operation. In order to get the exact timing with reference to one another of these parts they should all be lined up on a different drawing showing their position at zero and then as you went by, you see, you could see how they operated.

THE COURT: I can follow that.

A. But what happens is that between the first and second wipe—and I will go through again—this being the first wipe, between the first and second wipe the hold-down is lifted up in order to bring the shoe nearer to the plane of the wipers for the second wipe, it being better to have the shoe positioned further away from the wipers during the initial breakdown operation. That is illustrated by the upper curve in the lower track on Figure 10. If you should adjust the nut ahead of 208 in Exhibit 18 sufficiently to effect the movement of the hold-down so that it would prevent too much lifting of the shoe, then you could adjust for the purpose of lifting exactly the amount that you wanted to between wipes. Perhaps I will go over that again to make it a little more clear.

THE COURT: No, I watched that very closely. I think that I—

A. —That is, that adjustment, if varied the full throw shown on the cam, would not let the roller go in at all. If you went in not more than the lift-up between wipes you would then be varying that portion. If you went in equalling that you would then be varying the other part of the hold-down which is in the upwipe wipe.

At this point a recess was taken until ten o'clock in the morning of the following day, Thursday, January 19, 1939.

MORNING SESSION

Thursday, January 19, 1939.

Pursuant to adjournment the hearing was resumed, counsel being present as heretofore noted.

Thereupon,

Peter T. McNulty,

resumed the stand and testified further, as follows:

DIRECT EXAMINATION

By Mr. Lyman:

Q37 Mr. McNulty, you have prepared enlarged copies of the Hoyt patent, with which you can explain the Hoyt construction, can you not? A. Yes.

MR. TOULMIN: Before the witness proceeds, I would like to advise the Court, that yesterday afternoon at the request of counsel for the plaintiff, we gave them an opportunity to photograph our machine, and we furnished them our mechanic, who has been here to dismantle the machine. I understand they took extensive photographs. I want the record to show our position in this matter; I want Your Honor to understand that we made this disclosure voluntarily, but no copies of the photographs have been furnished us as yet.

Q38 That's correct, Your Honor; of course, the photographs haven't yet been received. The answer to that question is yes, then? A. Yes; may we mark them now?

MR. LYMAN: Let's mark these large copies of these drawings in evidence, before you proceed. I will offer in evidence as plaintiff's exhibit 19, the enlarged copy

of the drawings of the Hoyt patent in suit, sheet 1; as exhibit 20, the enlarged copy of sheet 2 of said drawings; as exhibit 21, the enlarged copy of sheet 3 of said drawings, and as exhibit 22, the enlarged copy of sheet 4 of said drawings.

And the enlarged colored charts, so offered in evidence by counsel for plaintiff, of Hoyt patent, 1,508,394 are made part of this record, marked as follows:

Plaintiff's Exhibit 19, Sheet 1, Patent No. 1,508,394, to Hoyt.

Plaintiff's Exhibit 20, Sheet 2, Patent No. 1,508,394, to Hoyt.

Plaintiff's Exhibit 21, Sheet 3, Patent No. 1,508,394, to Hoyt.

Plaintiff's Exhibit 22, Sheet 4, Patent No. 1,508,394, to Hoyt.

Q39 Now, Mr. McNulty, will you proceed to explain the construction of the Hoyt patent in suit, in so far as concerns the particular mechanisms with which we are here concerned? A. In sheet 1 of the patent enlarged as exhibit 19, I have applied colors to the same general parts that I applied in the enlargement of the McFeely patent, as explained yesterday. On this particular chart, the heel band, 140, has been colored dark green, and the words "heel band," have been added. The tacker portions have been colored light green, and the word "tacker," added. The clip supporting the forward end of the band is shown in this view, and it is colored dark purple. Also, the wing nut is colored orange. The adjustable supporting member at the rear is shown and a dark red color has been applied to it. As will best be seen from another exhibit, at the top of this supporting member are two loosely mounted arms, which are shown down here in sectional view, but no number applied to them, and I have colored those pink. The tacking units of this Hoyt patent are colored tan and the hold-down in front of the tackers, which is 256, has been colored light green. The parts shown in this view which actuate the hold-down, have been colored a darker shade of green, and the parts which control the mechanism to close the heel band, and also which operate to pull the jack in, have been colored dark brown, in the same general manner as in the preceding patents. The

dark brown transmits its power to the spring, which, in turn transmits its power to the red member in the center of the dark brown part. The forward portions of the light red member, 190, are connected with the red part, 192, and at the top is the equalizing member, better shown in another view, marked 188. They have been colored a carmine red. This patent, Your Honor, shows the application of a number of tacks on to the outsole part of the heel section of the shoe, as shown in sheet 4, in figure 6, by the dotted members between the hold-down part and where the shoe would be. Inasmuch as there are no bodily swinging wiper plates, I have applied no dark blue color to those; I just made them a part of the tacker unit.

On exhibit 21, which is sheet 3, I have applied a tan color in the plan view to members of the tacker unit, to illustrate where they would be in there, moving into tacking position. In exhibit 21, Your Honor, a plan view, also, of the hold-down part, to which I have applied a light green color. Then in figure 8 on this sheet, which is a fragmentary view through the heel end of the last, showing a part of the heel band, 140, which I have colored dark green, a portion of the hold-down, 256, which I have colored light green, and then this outsole, C, is shown in section, and the last with its insole, its upper front over the heel end, is also shown, the insole being B. To the No. 94, which is fastened on the bottom of the tacker, I have applied a tan color. That moves as a part of the tacking unit.

In exhibit 22, sheet 4, enlarged, figure 4, shows a section through the tacking unit to the forward end of the heel band. I will refer for a minute to exhibit 20, sheet 2, enlarged, so that we can see where that section would be, and it would be where I am placing my pointer, at the forward end of the operation of the heel band. Then in exhibit 22, sheet 4, in figure 6, we find another section, in sectional view, through the heel end and the tacking unit, which would be at the point I am pointing to, on exhibit 20, in sheet 2, in figure 2, of the patent. I have applied a tan color to the tacking portions shown, a dark red color to the adjustable member connected with the heel band, which is the supporting unit; a pink color to the loosely mounted arms, which are mounted at the top end of that member and dark green to the heel band, orange to the presser members, yellow to the members which move the presser members, which I have referred to on another sheet, purple to the clip that supports the

forward end of the heel band, and orange to the wing nut at the bottom end of the presser member. This is better shown in section in figure 4, where I see the orange part is shown as it goes down through a like support to the purple clip, which is at the bottom of the heel band which is colored dark green in this view. I am going to change easels and get two charts.

Sheet 2, enlarged, exhibit 20, shows a plan view of what would be directly above the heel band closing mechanism. Beginning at the top, I have on this chart, broken away, a small portion of the power driven slide member, to illustrate how the stem of the operating member extends through, with the spring around it. I have also broken away the housing member, 132, in which the springs are located, two spring presser members, and have simply illustrated the spring in there.

In this embodiment, the power is transmitted from the main cam, through the arm, 200, to a power driven slide, 194, and that power is used to close the heel bands through the spring 192, and forwardly to an operating member, to which I have applied a carmine red color, the operating member being No. 188. I have also put the words, "operating member," alongside of this, with a lead line. That's correct; the operating member is called the equalizer. In fact, the power is transmitted to the presser members from the operating member through the parts 184 and 186, which I have colored yellow, which have racked teeth on their forward ends, and as they move, they transmit motion through connecting arms, 176 and 178, which are connected through bell crank levers with the teeth on one end, the bell crank levers being 176 and 178, and the motion is then transmitted through the parts that I have colored yellow, to the presser members, to which, I have applied an orange color.

The legend "connections between operating member and pressure members," has been applied to the bell crank lever, 178. The legend "heel band," has been applied to the heel band, 140, which has been colored dark green, and the legend "spring pressed plates on loosely mounted arms," has been applied to the plate, 246, pivotally mounted on the arms, 240 and 242. I have applied a pink color to those arms and to those presser members. The arms, you will remember are mounted on the supporting members, which I have referred to in exhibit 22, on the forward parts of the support which is dark red, shown best in figure 6 of exhibit 22. These

spring press plates, as I term them, 246, are acted upon by members 248 and 250, sliding in yoked arms, 232, with the springs behind them. The members, 248 and 250, come against the ends of the arms, 242 and 240 to press the plates, 246 and 244 against the corner of the bight, as the patent says, of the heel bands.

That's all the yielding connections referred to, and the ones at the foward ends of the heel bands are termed in the patent as unyielding connections. And, the connections from the equalizer, or operating member, 188, and the presser members, which are racked at the foward end of the heel band, and then through other contacting plates marked 168, that being this little shoe or bar against the sides of the heel bands, are styled connections in the patent, and unyielding between the operating member, 188, and the presser members. Now if we follow the motion backward, assuming that the heel band is to close, from the position shown in exhibit 20, the arrangement of the presser members, would be to move inwardly, and consequently, the opposite bell crank lever on arm 168 would have to move rearwardly, and the motion rearwardly would be transmitted through the spring, 182, to the sliding block 194 and back to the cam; that being the opposite of the opening action.

Now, the yielding corner pressures, looking at the bight of the band, are transmitted through the members, spring press members, 248, 250, and I have applied a golden color to those members through the pink arms, to the presser plates, 246 and 244. Those are the parts that are called the loosely mounted arms, on the supporting member. Now, we have means in this patent for adjusting the initial position of the heel band by means of a part in figure 20, extended in dotted lines as I am now pointing to, to which I have applied a sepia color. It is like exhibit 8-A, the part that I am actuating, to show the motion transmitted to the heel band operation.

In this patent, we have clips, by means of which the heel band is supported at its forward end, so that there can be a sliding motion between the heel band and the supporting clips, which, as I am pointing to, in exhibit 20, is the violet member, or the purple member, 164, and at the same time you get the sliding movement between the heel band over to the presser plates, 168, at the side of the heel band, at the back of the band, fastened to which is a slotted clip, 242, to which I have applied a dark red color, and it is supported upon the same member that the loose pink arms are supported on, that

being the pin member, 144. That member is, in its shape, somewhat similar to the orange member that I am pointing to at the top, 154, but it is formed with a shoulder in the main supporting member, so that while it has directly an upward movement, its downward movement is limited by the shoulder in the sliding supporting member, 146. And, at the top of the loosely mounted arms, immediately underneath, it is on back supporting member, 236, which is also mounted on that same pin, on this same support. That member has a part, 234, which is shown on exhibit 20, that I am pointing to, directly behind the center portion of the heel band.

So that, when you press backwardly into the heel band, the heel band is supported in its backward movement, by the back stop, 234, which, in turn, is a part of the main supporting member of the heel band. So that, here, we have heel band members against the shoe, with what the patent terms unyielding connections between, an operating member and a presser plate, and yielding connections at the bight of the band, called the back, which are the spring members. And, we also have supporting means with the band, which are the supporting clips, 142, that is, one slotted clip, the front supporting clip, 164, and the back support, 234, which is the support at the back of the bands against rearward movement during operations, when the jack is pulled in hard.

By Mr. Lyman:

Q40 I should like you to show the Court, Mr. McNulty, those operating mechanisms which you have described in connection with the patent in suit, appearing in the model A machine. You have had some photographs made, haven't you, of those exhibits, 8-A and 8-B? A. Yes, I have.

Q41 The model A, is just like the McFeely, that's the testimony; the model A has some refinements. I would like you to produce those photographs. I think perhaps also, you have colored some photographs? A. Yes, I have.

Q42 That will tie up with the other exhibits? A. Yes.

Q43 First, let's have some of the uncolored photographs?

MR. TOULMIN: May we see them a second?

MR. LYMAN: Yes, but let's see if he can verify these.

A. The first photograph that you hand me is a front view.

Testimony of Peter C. McNulty (Resumed).

THE COURT: Perhaps it would be better to wait until Mr. Toulmin looks them over.

A. We will get you a set of them. It is simply a question of the mechanics of getting them together, and so on.

MR. LYMAN: Let's mark these collectively as plaintiff's exhibits 23, sheets A, B, C, D, E and F, respectively.

MR. TOULMIN: I would like to have the record show that we make the same objection to these exhibits that we made to the physical exhibits of the other photographs, so that the record will be clear on that point.

THE COURT: All right; they will be received, subject to the same objection.

The six photographs so offered in evidence by counsel for the plaintiff, are made part of this record, marked as follows:

Plaintiff's Exhibit 23-A, Photograph, Plan view of Exhibit 8-B.

Plaintiff's Exhibit 23-B, Photograph, Top view of Exhibit 8-B, plates removed.

Plaintiff's Exhibit 23-C, Photograph, Bottom view of heel band portion of Exhibit 8-A.

Plaintiff's Exhibit 23-D, Photograph, Plan view of Exhibit 8-A.

Plaintiff's Exhibit 23-E, Photograph, Front view of Exhibit 8-B.

Plaintiff's Exhibit 23-F, Photograph, Bottom plan view of Exhibit 8-B.

By Mr. Lyman:

Q44 I have asked you about some colored photographs. What are these enlarged colored photographs which you have produced? A. I have enlarged colored copies of exhibits 23, B, C, D, E, F. I have no colored copy of exhibit 23-A, and I produce a binder which you can mark enlarged colored copies of the exhibits, which I have referred to, 23, B, to F, inclusive,—not exhibit A.

Q45 These are some enlarged colored copies, are they? A. Yes, the uncolored ones are on those other sheets.

MR. LYMAN: I will offer in evidence this group of colored photographs, as plaintiff's exhibit 24, containing five colored photographs.

MR. TOULMIN: May the record show our same objection?

THE COURT: Yes.

Testimony of Peter C. McNulty (Resumed).

The binder of colored photographs, of model D heel seat lasting machine, so offered in evidence, by counsel for plaintiff, is made part of this record as **Plaintiff's Exhibit 24.**

Q46 Will you proceed, Mr. McNulty, to explain what these photographs show? In the first place, they show the construction of the model D machine, do they? A. May I first explain what the uncolored ones are, by the numbers you put on them?

Q47 Yes? A. I think perhaps you have picked the one that is a duplicate view. These are marked 23-A and 23-B, instead of which, I have in my colored charts a front view of exhibit 8-B, which you haven't put in as one of the uncolored ones. Might it be better to substitute for 23-B, the front view of exhibit 8-B, instead of two views of exhibit 8-B, which are duplicates, except for the direction in which the pictures have been taken?

MR. LYMAN: We should like to do that, Your Honor.

A. (Continued) These two are the same, you see, except that this one is a little better view of it. This is the one, Mr. Hammett? (Indicating)

MR. HAMMETT: That's the one you want?

A. Yes, the front view of exhibit 8-B; you have several of them there uncolored.

MR. HAMMETT: I think we have a complete set now.

A. (Continued) That's the one; Mr. Ryan has one in his hand.

Q48 This is the one, for which we are substituting this one here? (Indicating) A. These are the two. Instead of that one, we ask that this one be substituted. (Indicating) No, I was wrong, you did have as E, an exhibit of the front view of 8-B. What I have in my colored charts of the first sheet, is a combined view of the two exhibits, which you didn't put in. So, I suppose we had better put that one back and put the other one in, because it is a duplicate. Now, in the uncolored exhibits that we have, 23-E, is a front view of exhibit 8-B. 23-A is a plan view of exhibit 8-B, with the cover plates removed. 23-F is a bottom plan view of exhibit 8-B. Exhibit 23-B, is another top view of exhibit 8-B with the plates removed, but with the center block member which is shown in proper position in 23-A, to connect the ends of the bell crank lever, removed. Exhibit 23-D is a plan view of exhibit 8-A. Exhibit 23-C is a bottom view of the heel band portion of exhibit 8-A.

Testimony of Peter C. McNulty (Resumed).

In the binder of colored drawings, exhibit 24, the first sheet is a front view of exhibit 8-A mounted upon exhibit 8-B. Now, if you have the exhibit numbers, will it be all right if I put an arrow and a lead line on 8-A and 8-B, to indicate on this first sheet, which is which?

Q49 Yes? A. I am placing a lead line with this arrow to the top portion, which represents the tacker and wiper portion, and putting exhibit 8-D indicating that portion. At the bottom part I am putting a lead line and an arrow, I mean a lead line, and marking exhibit 8-A at the bottom portion. On this first sheet I have applied a tan color to the tackers, and immediately under the tackers, I have applied a light blue color to the wipers. I have applied a green color to the heel band, leading to the supporting clip member shown at the back of the heel band, also leading to the yoke arm on which the springs are mounted, that presses the mounted arms against the corner heel bands, and gold to the part of the spring pressed by the spring against the arms. I have applied orange to the parts below, and the clips supporting the front end of the heel bands, —yellow to the parts which press the orange parts against the forward end of the heel bands and purple to the parts associated with the wiper plates, which adjust them by hand adjustment preliminarily.

I have also put a legend on as follows: At the left-hand side, "manual adjustment for wiper on left;" at the right side, "manual adjustment for wiper on right." Those are the ends, to which I have applied a purple color. I have also put a legend at the right upper portion, "manual adjustment for wipers." Understand, too, Your Honor, like in this model A machine, they have in addition to the individual adjustment, in the model A machine, its equivalent at each side, and there is super-imposed another adjustment, represented by the wheel, which I have now marked, "manual adjustment for wipers," that adjusts two of them simultaneously.

MR. TOULMIN: These drawings all have legends. Don't they speak for themselves, without having that in the record?

THE COURT: As far as I am concerned, but it may be that the witness and counsel have some object in view.

MR. LYMAN: I think we ought to have them in the record for the Court of Appeals, and perhaps for this Court when it considers the case.

Testimony of Peter C. McNulty (Resumed).

THE COURT: Those legends speak for themselves and are easily understood, but if counsel wants this for the record, that's their business.

MR. TOULMIN: I don't want to take too much time on it, or worry the Court about it.

A. I can close it up by saying that I have applied the same colors on the same parts, in the other drawings.

THE COURT: So far as I am concerned, that's all right.

A. Suppose I first explain what each sheet is. The second sheet in exhibit 24, is a front view of the exhibit 8-B; the third sheet is a bottom plan view of exhibit 8-B; the fourth sheet is a top plan view of exhibit 8-A, and the fifth sheet is a bottom plan view of the heel band portion of exhibit 8-A. And, in order to tie up the sheets with the explanation just given, I will mark 1, 2, 3, 4 and 5 on the sheets in the order that they are, and you will find them in there, marked exhibit 24. On all these sheets I have applied the colors, and have put the names on the parts, putting the same colors on the same parts, that I have formerly referred to, in explaining the Hoyt and McFeely patents. I understood, however, that perhaps counsel wanted me to point out specifically in here what these parts were, which I will be glad to do.

MR. LYMAN: Just a moment, Mr. McNulty. We have here one of the small photographs corresponding to the third sheet of exhibit 24, and I will ask that that be included in exhibit 23, sheet G.

The photograph so offered in evidence by counsel for the plaintiff, a plan view of Exhibit 8-B, is made part of this record, marked **Plaintiff's Exhibit 23-G.**

MR. LYMAN: Now, the question has been raised apparently, as to whether our model D machine is really an embodiment of the claims in suit of the McFeely patent. I want to get that straight, and I would like to get an answer as to just what procedure applies in such a case. First, I could ask this witness to take claim 6, for example, and point out the elements that appear in that claim, in this model D machine. Or, I could ask him where in the model D machine, he finds this element and that element, if he finds them. I will await Your Honor's judgment as to how that should be done, but I do want, either by argument or by the testimony of the witness, to show Your Honor now, that the

model D machine is the embodiment of all the claims in suit in the McFeely patent, that it only has refinements over it.

MR. TOULMIN: In the first place, it is not in issue here, as to whether they built the machine within the patent. The issue is, whether we built a machine within the patent or not. For that reason, the question of whether this model D is their embodiment or not, is immaterial. They have produced model A, which is their machine, and has been built and produced. That's sufficient. They didn't even have to do that, in order to have a good patent. That stands on its face as good, until we knock it down. For that reason, I can see no reason for taking any further time on the issue of whether or not they have built various models within their patent. We will never get through with this case in that way. We are now on the fourth day of this hearing, and I must protest against that method of procedure.

MR. LYMAN: May I ask if you admit that the exhibit, that the model D machine, is within the McFeely patent?

MR. TOULMIN: I do not, and I say that question has no place in this law suit, and we are objecting to it.

MR. LYMAN: I will call the Court's attention to claim 6. Let's first consider that the Court will have before it the tacker and wiper adjustment, and if Your Honor will have in mind claim 6, as I proceed to question the witness, I will ask him to point out in these photographs where the things referred to in that claim are found, if they are to be found.

MR. TOULMIN: I have another objection I want to make before the witness enters the province of the Court. The Court is to construe the claims. The claims are solely for the Court's construction. Now, if the witness here is going to interpret those claims, then he is usurping the function of the Court, that has been traditionally reserved for the Court.

THE COURT: No, I don't know that he is doing that. He is simply pointing out and verifying the claims from the exhibits before him; that's the object of it.

MR. LYMAN: That's all, Your Honor; of course, it is for Your Honor to interpret the claims; there is no question about that.

THE COURT: But the question has been raised now as to whether the model D, and the exhibits here, do embody the McFeely claims. Since the defendant does

not admit that, then, of course, the plaintiff wants to put evidence into the record that the exhibits here, and the model D, are in accordance and within the elements of the McFeely patent. Isn't that the purpose of it?

MR. LYMAN: That's just the purpose.

MR. TOULMIN: Very well, when we come to the prior art, and the question of infringement, we will follow the same procedure.

THE COURT: That's up to you. It is their version of it. Counsel has prepared their case, in accordance with their version and view of the case, and the Court has no disposition to interfere with it. He would much rather, for the benefit of the Court of Appeals, that you would present your case in accordance with the way you have worked it out in advance. There is no disposition here, unless some serious question arises, to interfere with that plan. Is that plain?

MR. TOULMIN: Perfectly plain, Your Honor, I shall proceed on that basis when I come to our case.

By Mr. Lyman:

Q50 Speaking of this model D machine, the model D heel seat laster,—we are talking about that machine. Now, Mr. McNulty, will you say whether on that machine there are end lasting wiper plates for closing over a last bottom? A. Yes, as shown in sheet 2 of exhibit 24, those are the blue parts.

Q51 And in that machine are there manually operable means for adjusting determinately the position of those wiper plates, so as to initially position them to act on the marginal portions at the end of the shoe upper on the last? A. Yes, you have the detail parts in exhibit 24.

Q52 Are there means in that machine to effect bodily and swinging movement of the wiper plates in it to wipe the marginal portions over the bottom of the last? A. Yes, that's the power driven slide which acts upon the wiper plates, which in sheet 3, of exhibit 24, is shown as a dark blue member.

Q53 Do they have a bodily and swinging movement? A. The slide transmits its motion to the light blue wiper plates, to cause them to move forward bodily, and at that same time, to swing inwardly. If Your Honor will look at sheet 2 of this, you will see, extending down over it a corner of the light blue part.

THE COURT: Yes, I have seen that.

Testimony of Peter C. McNulty (Resumed).

A. (Continued) In sheet 21, at each end of the light blue wipers, you will see a pin colored light blue extending down into the pawl part.

THE COURT: Yes.

Q54 Now, in this model D machine, do the tacking units which co-operate with the wiper plates, have means to maintain them in predetermined relation to the wiper plates in all positions of adjustment of the plates? A. Yes, they do.

THE COURT: Perhaps we can shorten this some. Instead of going over the whole business, perhaps Mr. Toulmin will point out where the claims and the exhibit, model D are not in accord with the patent, and give the plaintiff that information. I mean, if you will point out specifically where you think they have failed instead of compelling them to go over the whole of this, then they can just center their testimony on that.

MR. TOULMIN: I have already made that statement on the record, in connection with the objection to model A and model B and model D out in the other room. And it is for that reason that I made the statement, and I think it is complete in the record. And, I would like to stand on that statement. If we wish to shorten the matter, I will make this suggestion, without prejudice to our case, because I am willing to co-operate. If counsel wishes to have Mr. McNulty state that he finds in claim so and so, all the elements of that claim in that machine, that it is just the same,—that's perfectly agreeable to me as a quick way of getting at it.

A. (Continued) Before I finished that last answer I should have said, in the exhibit uncolored, which shows over the top of exhibit 8-B, with the covers off, you will find the transmission or the dark blue mechanism, which operates the slide.

Q55 I think it would be well to have on the record, an express statement for the record,—a brief statement, as to where each of the elements are found. May I call your attention to claim 23, the next claim,—does this model A machine have a substantially U-shaped flexible clamping member that embraces one end of a last and shoe upper? A. Yes, that's the heel band member colored dark green in exhibit 24.

Q56 And means to support the last and shoe upper with one end positioned within the clamping member? A. Yes, that's the jack part.

Q57 Has it a movable adjusting member connected to the lower edge of the clamping member at its rear

closed end? A. Yes, on exhibit 24, on sheet 4, the dark red part acted upon by the sepia part, constitutes the mechanism for doing that.

Q58 Has it means to support the lower edges of the clamping members on opposite sides? A. Yes, it has the clip for that purpose, which is shown in sheet 1.

THE COURT: I think the answer that it has, is sufficient.

Q59 Has it pressure members arranged to engage the opposite sides of the U-shaped clamping member and press those sides inwardly to force the end of the upper in close conformity to the last? A. Yes, it has.

Q60 Has it manually operable means to move the adjusting member to slide the U-shaped clamping member relatively to the pressure members? A. Yes sir.

Q61 Has it means to operate the pressure members to clamp the shoe upper and the end wiping mechanism to wipe down the edges over the bottom of the last? A. Yes sir.

MR. LYMAN: Well now, since Mr. Toulmin has suggested that we put a general question in order to shorten the proceedings, let me then, follow Mr. Toulmin's suggestion.

MR. TOULMIN: I was just trying to expedite matters.

Q62 Yes, I understand. You have compared, have you, Mr. McNulty, the claims of the McFeely patent in suit, numbers 6, 23, 42, 85 and 91, with the plaintiff's model D machine, have you? A. Yes sir.

Q63 Do you find that the subject matter of the claims, of those claims, of that patent, are embodied in this model D machine or not?

MR. TOULMIN: We are objecting, if Your Honor please. May I have it noted that our objection is running along to all this testimony?

A. I find them embodied in the model D machine.

Q64 In all cases? A. Yes sir.

MR. LYMAN: You are not objecting to the form?

MR. TOULMIN: Not as to the form; I would tell you so if it was to the form.

THE COURT: Of course, counsel for the defendant is making his points here, I assume to tie them in with his defense, as to this question and answer. The defendant has an exception.

MR. TOULMIN: I want to object to all of this evidence, without interrupting the examination, if the Court please.

Testimony of Peter C. McNulty (Resumed).

THE COURT: That will be all right.

MR. LYMAN: I understand then that there is no objection to the form of my question?

THE COURT: It is not quite clear at this time just to what point counsel is objecting.

MR. TOULMIN: I will be very glad to clarify that again. I object to the testimony that has been introduced in this case, with reference to the whole question, including model D, as to whether it comes within the patents in suit or not, because, in my judgment, that is not an issue in this case for determination by this Court, and I therefore, object to putting in testimony that has no bearing upon the determination of the two issues of infringement and validity.

THE COURT: Of course, as I have said, when you put your case in, what you have in mind will more readily appear.

MR. TOULMIN: That's right, Your Honor, and if I were in Your Honor's place, if I may make a suggestion, I would suspend ruling on the objection until you hear my case, or otherwise, just as I make my position plain at that time. That can then be taken up for consideration on the record when I come to the defendant's proof. I will take an appropriate position at that time.

THE COURT: The ruling is the same. The answer will stand and you may have an exception.

A. So far, you have asked me only about the McFeely claims.

Q65 I also intended to ask you, have you compared the model D machine of the plaintiff, with the claims in suit of the Hoyt patent, claims 19 and 21? A. Yes sir, I have.

Q66 Do you find the subject matter set forth in claims 19 and 21 of the Hoyt patent, present in the model D machine of the plaintiff? A. Yes sir, I do.

Q67 I want now to proceed to consider the defendant's machine, Your Honor, with this witness, and those photographs haven't come yet, that Mr. McNulty had made last night? A. They were due here at 11:00 O'clock.

MR. LYMAN: It would facilitate matters if we had those photographs.

At this point a short recess was taken, after which the witness, Peter T. McNulty, resumed the witness stand and testified further as follows:

Testimony of Peter C. McNulty (Resumed).

MR. LYMAN: If Your Honor please, the photographs haven't arrived yet, but we will go ahead without them.

Q68 You have heard the testimony of Mr. Ryan, about the machine that we saw at the Williams plant, and you have examined the defendant's machine in the Court House here, have you, Mr. McNulty? A. Yes sir.

Q69 I am going to ask you to compare the defendant's machine, as you have seen it, and as explained by Mr. Ryan, with the subject matter dealt with in the claims in suit of the McFeely patent. Now, in your explanation, you may assume first that the screw and clip, to which reference has been made, and which are absent from the machine in the Court room and are not in use on the machine, although it appears that they were for some period of time initially; you may also assume that the springs in the pressure members, which in defendant's machine applied pressure to the arms near the bight of the heel band, are in the machine and it appears that they have been taken out from the machine in the Court room, but they were originally in the machine; you may also assume that there was on the machines at the defendant's factory that adjustment for varying the extent of movement of the hold-down, the vertical movement of the hold-down, to which Mr. Ryan testified. For the purpose of your present answer, make those assumptions?

MR. TOULMIN: We object to the question for the sole reason, a vital one to my understanding, that the construction of the claims, as called for by this question is exclusively reserved to the Court, and cannot be gone into by a witness, or an expert witness. We therefore object to the question for that reason.

THE COURT: Well, of course, this witness is an expert witness, and that objection, of course, doesn't apply to the testimony of an expert witness.

MR. TOULMIN: I will be glad to submit authorities, Your Honor, to the effect that it applies to an expert, as well as to any other witness.

THE COURT: Is the question completed,—I mean have you ended your question?

MR. LYMAN: Yes, Your Honor, all I asked of the witness was to compare the defendant's machine with the claims, making those assumptions.

THE COURT: With the assumption that the spring was on the machine, and the fastening on the rear end of the heel band was there.

MR. TOULMIN: My objection goes to that part of his question with reference to the claims. I don't care what the assumptions are, but I object to getting into the question of the claims, with the expert, because that's a matter that the Court has to decide.

THE COURT: Of course, the only way that the Court can decide is by and with the aid of the expert witnesses offered by the plaintiff and the defendant.

MR. TOULMIN: He can testify as to the subject matter, but the conclusions to be drawn from the claims, are reserved for the Court.

THE COURT: Certainly; there is no doubt about that. The question may be answered, and if it becomes apparent that the answer should be stricken, we will consider that later.

MR. TOULMIN: Thank you, Your Honor. I want Your Honor to know that I am not trying to be captious.

THE COURT: Oh! no; as I have said, it is up to counsel to try the case as best they can, the way they see it, and according to their theory of it.

By Mr. Lyman:

Q70 I will ask you first, Mr. McNulty, will you direct yourself first to those claims which I have denominated the tacker-wiper adjustment claims, or the tacker-wiper claims, of McFeely claims 6 and 85? A. Now, Your Honor, in answering that question, I understand that I am asked to point out in defendant's machine, with the assumptions Mr. Lyman made about it, any structure which I understand corresponds to the claimed elements referred to?

THE COURT: 6 and 85?

A. (Continued) And before I answer, for the purpose of the record, may we refer to the specific parts which those assumptions relate to? I understand the clip you are talking about would be illustrated in the McFeely patent, number 62 in figure 6. That was the first assumption.

THE COURT: What sheet is that?

A. Sheet 5, figure 6; the clip number 62,—that's correct.

Q71 That's correct? A. The spring element mentioned second, is in the Hoyt patent and is referred to in the specifications, page 5, line 77, as "spring-pressed plungers 248 and 250 seated in bosses on the ends of the yoke 236." So that the spring that you are talking about would be shown in exhibit 20, by the gold spring which I have put in the post 232. I think it might be better to

tie these assumptions up directly with the numbers in the exhibits, so that there will be no misunderstanding about it.

Q72 Yes, your assumption is correct? A. Then, the third assumption that you asked me to make was the member which would correspond to the adjusting nut, shown in sheet 6, figure 9, of McFeely, that bears against the lug, 208.

Q73 Tell me what sheet? A. Sheet 6, figure 9, of McFeely, that bears against the lug 208. There's an adjusting nut on the rod, 222. That's the means in this patent for varying the vertical adjustment of the hold-down member, 200. That's the sheet. On exhibit 18, it is the forward end portion of the silver member, to which the lead line extends and the notation "adjustment to vary the vertical movement of the hold-down." That's the third assumption that I was asked to make. Now, Mr. Lyman, if that doesn't agree with what you meant by your assumptions, let's understand the question?

Q74 What I was referring to in that latter assumption was not the means for varying the original position of the hold-down, but the means for varying the extent of the vertical movement of the hold-down? A. That's the part that I have pointed out.

THE COURT: That's the part that was sawed off later? A. No sir, the part that was sawed off, was the first one I referred to, the clip, 62.

MR. LYMAN: In this Moenus catalog, it is the part which the witness Ryan marked with the letter X, in that Moenus catalog, plaintiff's exhibit 10, at the page marked e.

A. (Continued) You have asked me to refer first to what you call the tacker-wiper claims of the McFeely patent. I would like to refer first to claim 85.

Q75 Very good? A. In claim 85, the claim reads, —"In a machine of the class described, the combination with last and shoe positioning means." The last and shoe positioning means in the defendant's machine would be the jack post upon which the shoe is mounted in brown, with the hold-down member on top. "Of end embracing wipers." These in defendant's machine would be the wiper plates on the machine which have swinging and bodily movement. Next,—"Means for effecting a preliminary adjustment of the wipers to the contour of the shoe." In defendant's machine, there's a hand wheel on the right-hand side of the machine, which is

in the nature of a shaft, having two gears, on which it meshes with two other gears, that operate to move a rack, the teeth of which engage a gear of the vertical shaft. At the bottom of the vertical shaft, is a sector with teeth in it which, in turn, engages teeth in the member that will be called for the purpose of reference a wiper carrier member. That member has engagement with the slide which is acted upon by the cam roller to bodily move the wipers forward, an arcuate engagement similar to what I pointed out on the patent. The light blue parts engage the dark blue parts of the McFeely patent in suit, so that when you turn the end wheel, it would, through the connections I have just described, swing the wiper plate, either in or out, with reference to the supporting blue slide member of the patent, which is the color put in for illustration of what I am talking about. And, in that way, the defendant's machine, effects a preliminary adjustment of the wipers to the contour of the machine. In defendant's machine, whatever the design of the parts consists of, it adjusts the two of them simultaneously. I could point those parts out on the machine in the hall, if you care to have me do so.

THE COURT: No.

A. (Continued) The photographs that we have coming will illustrate the views of those particular parts, so that you can easily follow them. The next part of the claim, is,—"Additional power means for subsequently operating the wipers." Now, in the defendant's machine, after the end adjustment would take place, as I have just described it, and the machine goes through its power stroke, the cam comes through a track on the cam, on the contact roll, which is fastened into a slide, and that slide is the additional power means for subsequently operating the wipers through the power cycle of the machine. The next part of the claim is,—"And tackers connected to the wipers for preliminary adjustment with them and for power effected movement with the wipers subsequently over the shoe." Now, the tackers in defendant's machine are connected to the part that I referred to as the wiper carrier, the tacker and wiper carrier,—the tackers being on the top portion of it, and the wiper plate on the bottom portion of it, so that in the machine, the structure is such, that the tacks through the connection, through the wiper carrier, and then to the wipers, are connected to the wipers, and whenever you adjust the wipers, you adjust the tackers. We have a hold-over adjustment,—whenever you move the parts by power, the wipers and the tackers are af-

fected by the power movement, to move subsequently over the shoe.

Now, we turn to claim 6, and claim 6 reads,—"A machine of the class described having, in combination, end lasting wiper plates for closing over a last bottom." In the defendant's machine, the wiper plates are the portion on the underneath side, of the tacker and wiper, and they are for closing over the bottom of the last. The next part is,—"Manually operable means determinately to adjust the positions of the wiper plates to initially position the wiper plates to act on the marginal portions at the end of a shoe upper mounted on the last." Now, the manually operable means are the parts that I described in claim 85, which adjust the wiper plates initially before the power movement, if they need adjustment. Then,—"Means to effect bodily and swinging movement of the wiper plates to wipe said marginal portions over the bottom of the last into position to be fastened on the bottom of the last." In defendant's machine, as the power movement starts and moves the slide forwardly, the racks that I mentioned in connection with claim 85, descend naturally, but because the vertical shaft with the pinion on the upper end engages a rack, does move, then the power is transmitted through the slide, the forward movement of the power driven slide, to swing the wiper plates and tackers inwardly, as they move forward, so that we get a structure, which is the bodily and swinging movement. I take it the "bodily," would refer to the structure that would move forward bodily with the machine, and at the same time swing inwardly as it was moved forward.

Then, reading again from the claim,—"And tacking units co-operating with the wiper plates." The tacking units are fastened on to the tackers, and carried through to the wiper parts, are fastened to it through the tacking units co-operating with the wiper plates. I think that's plain. "And having means to maintain, them in predetermined relation to the wiper plates in all positions of adjustment of said plates." We have the screws fastening the tacker plates, or the tackers themselves, directly to the wiper carrier plates. We also have screws fastening the wipers to the carrier plates, so that the means to maintain them in all predetermined relation to their position of adjustment, is this intermediate plate, to which they are both attached in any adjusted position, and they always stay in that position. After they are once fastened to this wiper carrier plate, they

are thereby maintained in the same relative position, no matter how you adjust them as a unit.

Q76 Now, will you turn to claims 91 and 23, relative to the heel band? A. Claim 91 is the shortest, so let's refer to that one first. In claim 91, it reads,—"In a machine of the class described, the combination with last and shoe positioning means." This, as I referred to previously in the defendant's machine, would be the jack post underneath the last, together with the hold-down member that engages the upper portion of the outer insole at the higher portion of the last. "Of an end embracing band for clamping the upper around the lateral periphery of an end of the last." This, of course, is the heel band member of defendant's machine. "Supporting means relatively to which the opposite side portions of the band are permitted to slide lengthwise of the shoe." On defendant's machine, near the forward end, at opposite side portions of the band, are clips which extend down in a U-shape and come in underneath another slide in the bottom of the band. So that these clips would be supporting means for the opposite side portions of the band, and would fasten to the band, so that they provide a sliding fit to the band and by that construction are permitted to slide lengthwise of the machine in those clips. The last element is "and means connected to the end portion of the band for adjusting it lengthwise of the shoe and relatively to said supporting means." Now, the clip, 62, in the patent, is the one I refer to as the clip, which is attached to the end portion of the band. The assumption I was asked to make here was, that in defendant's machine, there was a clip, which was later sawed off, the function of which was to attach the end portion of the band to the supporting member. In addition to this part, we have an operative connection between the back end of the band and the sliding adjustable supporting member, that fits in position to be in operation, to push the band forwardly, or, when adjusted back to the heel tacker, pulls the shoe back into the heel band. It allows them to be adjusted back into the band. That finishes 91.

Claim 23,—"A lasting mechanism of the class described having, in combination a substantially U-shaped flexible clamping member." That's the heel band portion in defendant's machine. "Means to support a last and shoe upper with one end positioned within said clamping member." That's the jack post upon which the shoe is mounted, that starts the shoe with one end positioned within the clamping member. Next,—"A

movable adjusting member connected to the lower edge of said clamping member at its rear closed end." This movable adjusting member is the block back in the machine which may be adjusted to change the position of the heel band and allow it to slide with reference to the supporting clip for different sizes of shoes, and it is connected to the lower edge of the clamping member that's closed in through the clip. "Means to support the lower edges of said clamping member at opposite sides." In defendant's machine, you have the little U-shaped clips from the bottom presser members to the forward part of the heel band, which support the lower edges of the heel band at the opposite sides. Next,—"Pressure members arranged to engage the opposite sides of the U-shaped clamping member at points above its lower edges and to press said sides inwardly to force the end of the upper in close conformity to the last." These pressure members are the pivoted plates, which are pushed in by the mechanism at the outside forward end of the heel band, that press against the upper part to closely form the heel band around the shoe. "Manually operable means to move said adjusting member to slide the U-shaped clamping member relatively to said pressure members." Now, on defendant's machine, on the right-hand side, you have an end mechanism with a little ratchet pin, that can be adjusted to slide the U-shaped clamping member, so that it will set, or, it is free to slide, with reference to the pressure member on the side.

In this claim, if you will refer back a minute to 91, you will see that in that claim, the slide is with reference to the supporting clip. "Supporting means relatively to which the opposite side portions of the band are permitted to slide," I am reading from 91. Whereas, in this claim it says that the band is to slide with reference to the pressure means. So that where one claim refers to a structure to permit sliding between the band and the supporting means, which supports the lower edges of the band, the next claim permits sliding with reference to the pressure members, at the sides, that are pressed against the band. The next element is,—"means to operate said pressure members to clamp the shoe upper." From the cam, you begin with the power actuating mechanism, which actuates a slide and comprises through a spring and a member that is connected by rack teeth, first, to the member to which the spring is connected and then to each side of that member. They have, extend-

ing forward, bars upon which there are racked teeth and they have bell crank levers, so that through those members, when power is supplied to the machine, you have means to operate the pressure members to clamp the shoe upward. Of course, with means of clamping the heel band against the shoe upward. Then, the last element,—"and end wiping mechanism to wipe down the edges of the upper over the bottom of the last." Immediately above the heel band mechanism is the wiping mechanism to wipe down the edges of the upper over the bottom of the last, as I explained in connection with previous claims, about the tackers and wipers.

By Mr. Lyman:

Q77 Now, will you take up claim 42? A. In claim 42, we find that it reads,—"A machine of the class described having in combination, clamping means to embrace one end of a last and shoe." That's the heel band in defendant's machine. "End wipers positioned to operate on the edges of the upper at said end of the shoe." The wiper plates of defendant's machine are the end wipers for that structure for that element. "A hold-down mounted for vertical movement and positioned to engage the bottom of the last and shoe." In defendant's machine, there is a hold-down against which the bottom of the last and shoe are positioned. "A support for a last and shoe constructed and arranged for manually effected movement to engage the last and shoe with said clamping means and hold-down." The support is the post on the jack which may be swung inwardly, manually, after the shoe has been mounted on it, to position the shoe within the clamping means and underneath the hold-down. "Power operated mechanism effective to move said support forcibly to press the last and shoe against said clamping means and hold-down to actuate the clamping means." The power operated mechanism in defendant's machine, to do what this claim calls for, is the structure that will take hold of the jack, press it inwardly against the clamping means, and subsequently actuate the clamping means to grip the shoe, and in that movement, it also presses the last and shoe against the hold-down. "Mechanism effective in timed relation to the clamping means to depress the hold-down and support to position the shoe bottom determinately below the plane of the wipers." In defendant's machine, there's a cam at the forward part of the cam track, which, through a rack and shaft,

with pinions on it, actuates the hold-down to press it down below the plane of the wipers, so that when you make your first wipe, the shoe will be below the plane of the wiper. And, it is in timed relation, because everything on the cam track during one cycle, occurs in some timed relation to everything else on that same cam track, and it is in timed relation to that part of the cam track, which actuates the clamping means, adjusting the heel band part.

The next claim is,—"Mechanism operative to actuate the wipers to break down the edge of the upper over the bottom of the positioned last and shoe." This mechanism is the part connected with the cam on defendant's machine, to the wiper plates. It has a slide on which the wiper plates are mounted, and a part that I explained in connection with the tackers and wipers, which causes bodily and swinging movement of the wipers, so that this mechanism, when it operates, actuates the wipers to break down the edge of the upper over the bottom of the positioned last and shoe. The next part of the claim says,—"The said hold-down mechanism being automatically operative subsequently determinately to raise the hold-down." In defendant's machine, a portion of the cam which actuates the hold-down mechanism later, that is, subsequently, permits the hold-down to rise after the first wipe and before the second wipe, so that mechanism, that part of the cam, which permits the hold-down to rise, will be the structure which subsequently raises the hold-down.

The next element or next part of the claim is,—"The said power operated mechanism being operative substantially coincidently correspondingly to raise the said support to engage the bottom of the last and shoe with said hold-down with the shoe bottom positioned substantially in the plane of the wipers." This part of the mechanism that extends from the power actuated portion of the heel band, that extends down into the jack part, in the defendant's machine—is the part which acts to raise the shoe last and support, to push it up against the hold-down as the hold-down is raised. This upward motion is supplied to further be sure that it comes up properly.

The next part of the claim is,—"the end wiper mechanism being subsequently operative in timed relation to wipe over and compact the broken down edge of the upper over the bottom of the last and shoe." The part of the claim of defendant's machine, which is connected

with the wiper and tacker mechanism through the slide block, is the structure which is operated in timed relation, because of its lugs on the cam track to actuate the wiper to wipe over and compact down the edge of the upper, over the bottom of the shoe. The next part of the claim is,—"Manually adjustable means for determinately varying the amount of vertical movement of the hold-down."

The assumption that Mr. Lyman asked me to take on the part that was marked in the catalog of the Moenus machine, was that there was an adjustable nut or bolt on the end of the arm, which contacted the back of the arm, upon which the cam roller was mounted, so that it controlled the vertical movement of the hold-down and made the cam track on the cam have a certain definite throw. If the roller takes, you might say, the entire 360 degree cycle, then the arms will move the full amount of the throw of that portion of the cam. If something is interposed to prevent the roller from taking the maximum throw, the entire 360 degree cycle, then the motion would only be a curve of whatever portion of the throw of the cam, the roller was permitted to take with the cam. So that, if you put behind the arm an adjustable mechanism that prevents the arm from travelling the entire, the full distance, you would then have means for varying the amount of the vertical cycle movement on the first wipe, and this adjustment is a bolt, which is manually rotated to make the arm go, that is, to allow the cam roll to go either closer or further away from the surface of the cam during the power cycle of the machine.

Q78. Now, will you turn to the Hoyt patent and compare the defendant's machine with the subject matter of claims 19 and 21 of that patent? A. 21 is a short claim; we will read that first: "In a machine of the class described, the combination of fastening inserting means." The tacker mechanism of defendant's machine drives tacks, so that they are fastening, inserting means. "Means for positioning a shoe in relation to the fastening inserting means comprising," and then we have four parts which define this fastening inserting means comprising. The first is,—"a substantially U-shaped flexible band operable to clamp the heel end of the shoe." That's the heel band operation of the defendant's machine. The second would be, reading on,—"means for supporting the band." In the defendant's machine we have means for supporting the

band against the pawl, one is a motion vertically and one is a motion horizontally. The first vertical one would be the clip, which, at the rear end of the band, at the lower edge, would contact with the adjustable supporting member. The second one against horizontal movement would be called a back-stop, which I referred to in the Hoyt patent as part 234, the back-stop on the supporting part against which the heel band is driven in the power movement of the cycle to maintain the band in position against the support during the power cycle of the machine.

The next element of the claim, and we are still defining that part up there, which says, means for positioning the shoe,—the third one is,—"devices comprising arms loosely mounted on the supporting means." In defendant's machine, under the assumption that Mr. Lyman asked me to make, there's a pair of arms, which were loosely mounted on pins in the supporting means, and they came out and have on each end of them, a pair of plates, that is, one plate on each arm, that contacted against the heel band spring, at what they call the bight of the heel band. Those arms would comprise loosely mounted arms. In defendant's machine, there is in each arm, an adjusting screw, which would limit the inward movement of the arm. But the arms themselves loosely mounted on the means pivoted on the arms, after they were pivoted or pinned and held by a key to the pin, if you put a gear to the shaft, and then put a key in it and then fixedly around the shaft, the gear will ride the shaft rods. But if you would loosely mount the gear on the shaft, and don't key the two together, then if the gear would move, the shaft wouldn't move. So, in the combination of the support in the defendant's machine, the arms were loosely mounted, so that when the arms moved, the pin didn't move. But, it wouldn't matter. It would matter, yes, because when the arms are mounted on the pin, the pin would be stationary, and the arms would move. Of course, you have two arms, one above the other on the pin, so that, if either arm was fastened to the pin, the other one could not be fastened to the pin; otherwise, your arms would be locked and not loosely mounted.

The next element of the claim is,—"means normally operative to press said devices against the band." The supporting member has, on defendant's machine, on the adjustable support, extending portions, or rather, arms extending upwardly with the means to receive a spring,

and a spring press member which acts against the arms, in order to force them against the band, and that would be the means normally operative to press the device against the band.

Claim 19 reads,—"In a machine of the class described the combination of fastening inserting means." Again, that would be the tackers of defendant's machine. "Means for positioning a shoe in relation to the fastening inserting means," and then he goes on, "comprising" a definition of what that position is,—"a substantially U-shaped flexible band operable to clamp the heel end of the shoe." That's the heel band in defendant's machine. Then, "an operating member." In defendant's machine, we have a member inserted between the slide member, which is operated by the slide and the spring which the slide acts against, the other end of the spring member, against the plate; and the head of the plate, would be an operating member, for actuating the remaining parts, not necessarily the remaining parts of this claim, but for actuating the parts between that member and the presser members at the side of the claim.

So that, the construction in defendant's machine, which is the operating member, is that member that is on the heel band side of the spring, we will say, and that member actuates parts which are connected through racks, the bell crank lever and through the presser members at the front end of the heel band. Now, here's the rest of the structure,—"And unyielding connections between said member and the band for forcing the ends of the band against the shoe." Now, from that member, through racks and bell crank levers and members acting against the head of the heel bands, you have a train of connections, in which there is no yielding from the operating member to the presser members at the side of the shoe.

The rest of the claim reads,—"and separate yielding means operating on each side of the band adjacent to the bight of the band to press such portions of the band against the shoe." Now that structure would be the loosely mounted arms which are equipped with presser members to press against the bight of the band at that operation, and spring presser, acting on each arm to forcibly press the members forwardly, or to retain, we will say, the pressing of the bands, which would tend to expand the loosely mounted arms. So that, in all pressures from the shoe at that particular

portion of its pull into the band, you would get a tight pressure from the spring member arm at that point, to force the bight of the heel band tightly against the last of the shoe at that point.

Q79 Now, Mr. McNulty, I want to ask your opinion, as to the effect, if any, which defendant's cutting off of that clip at the end of the heel band, has had, with close regard to the infringement of this claim by this machine? A. The defendant's cutting off of the clip, would, of course, break the physical attachment of the clip to the bottom end of the supporting member, which is adjustable. But it would not, however, prevent the adjustment of the heel band forwardly during the manual adjustment of the supporting member, to permit the heel band to have sliding relationship with reference to the supporting clips, at the forward edges, and presser members at the forward edges. And then, if the manual parts which actuate the adjustable support were operated in the opposite direction, to move the support forward, away from the heel band, as soon as the pressure push was cut off of the heel band, it would immediately permit the sliding relationship of the heel band with reference to the supporting clips to presser members, as it had previously done on the forward movement. And, it might be possible that perhaps the friction on the parts, might pull it back, but at least it would back-action the shoe, push it back, so that through the operative connections and associations between the parts it would get the same result in substantially the same way as though the clip was connected.

THE COURT: It would be as effieient as it was formerly?

A. It might not; there might be times, as was mentioned by some of the witnesses, where the putting of the shoe in, might cause the heel band at the rear end to go up a little bit higher.

MR. LYMAN: I think that's all, if Your Honor please, except that when we get those photographs here and get time to look them over, we want to put them in evidence as exhibits, with the testimony of this witness.

CROSS EXAMINATION.

By Mr. Toulmin:

XQ1 Mr. McNulty, will you be kind enough to turn back to the McFeely patent in suit, and with the McFeely patent before you, I would like to ask you a few

questions about this last part of your testimony on the claims. Like Mr. Lyman, I would like to make an assumption, and when I make the assumption in the question, will you answer the question based upon the assumption. I will say to Your Honor that if you will note the defendant's starting assumption, you will have accurately, in one place, the position of the defendant, and it will save a lot of labor. Let's assume that the defendant's machine has the heel band cut off at the back, as you found in the machine in the hall?

MR. LYMAN: You mean that clip?

XQ2 I mean the clip is cut off? A. You mean the clip, 62, in figure 6?

XQ3 Or, you can assume that the clip is on, but the wing nut is sheared off, so that there is no physical connection between the back of the heel band and the actuating part,—is that plain to you? A. Yes.

XQ4 Now, with that assumption, do you find in the defendant's machine, as called for in claim 91, the last element, "means connected to the end portion of the band for adjusting it lengthwise of the shoe and relatively to said supporting means?" A. As I just explained, the physical connection,—.

XQ5 Will you please answer yes or no, and then give your explanation? A. I will answer yes, and explain that in the answer, yes, I construe, "connected," to be an operative connection, in which it is physically pushed forwardly when the manual part is adjusted forwardly.

XQ6 But you find no physical connection between the two, did you? A. No, I said that.

XQ7 We can take that as settled between us, that far? A. Yes, that's right.

XQ8 If this phrase means a physical connection between the heel band and the actuating means, then the defendant does not have that element, is that correct? Will you please answer yes, or no? A. Might we have a definition of the word "connected" so that I could describe the structure?

THE COURT: I think you should answer yes or no; that's the same thing we had yesterday with Mr. Ryan.

A. No sir, if it means "attached," Your Honor, it does not.

XQ9 Now, I take it that your answer would be the same as to claim 23, which says in one element, "a movable adjusting member connected to the lower edge of said clamping member at its rear closed end?" A. That's correct, with that same assumption.

Testimony of Peter C. McNulty (Resumed).

XQ10 Do you find that element of connecting the back of the heel band to the actuating or adjusting member in any other of the claims in suit in the McFeely patent? A. Claim 85 relative to the wipers and tackers doesn't have that connection claim,—that's also relative to the wipers and tackers and doesn't have that connection.

XQ11 I merely want for the Court's convenience to sharpen the issues between us, as to whether that question of connection between the heel band and the actuating member arises in any other claims, except the two you and I have just discussed, which are 91 and 23? A. I don't think it is in 42; I would have to run through it to be sure, but I don't think so.

XQ12 Now, on this question of the heel band being attached to the actuating member, is it your position, that when the defendant's construction has no physical connection between the heel band and the actuating member, if the heel band is pushed forward, and the actuating member retreats, that that heel band will also follow the actuating member, if there is no shoe to cause that movement? A. You mean that if the,—

XQ13 Just a minute,— A. I said in explaining it previously, unless the friction of the parts caused it to pull back, the contact between the parts surrounding the back end of the band there and pressing against the band, as the parts go back, they might pull the band back. I noticed on, I think, the model D machine, somebody took the screw out of the clip and actuated it backwards and forwards.

XQ14 That is not the question, and that is not the defendant's construction? A. Unless the friction of the parts pulled it back, there would be no connection to pull it back, unless the shoe pulled it back, or, it was pulled back by hand, of course.

XQ15 But only friction would do it? A. Of course, if you eliminate the hand and the shoe.

XQ16 Do you find the friction named as an element in either claims, 21 or 93? A. No.

XQ17 As a matter of fact, it couldn't be,—it is not a physical thing? A. No, but I noticed on that heel band out there, a lot of white stuff, which apparently came out of some shoe, and that might influence the surface of the tack, so that would carry the parts back. The important part is, you get a slide between the supporting clips and the presser members at the front.

Testimony of Peter C. McNulty (Resumed).

XQ18 But the friction on the shoe, is on the inside of the heel band, and we have been talking about friction on the outside? A. I didn't understand that you said friction on the shoe; I understood it friction between the heel band and the presser members on the part of the shoe.

XQ19 You went into friction on the inside? A. If I did, let's take that out of that remark, friction on the inside.

XQ20 We have been talking about friction on the outside? A. Certainly.

XQ21 As an engineer, Mr. McNulty, I am sure you will agree with me that in this defendant's construction out there, that there is nothing to support the back of that heel band, because that engaged face on the back of the actuating member is smooth and descends downwardly and backwardly, so that it slopes like the roof of a house, only a good deal more sharply? A. You are talking about support in a vertical direction; I am talking about support against a rearward movement, to move the band in the power cycle.

XQ22 If Your Honor will indulge me just a minute, I will go and get the piece out of there, so that Mr. McNulty can see it. So, we can conclude on claims 91 and 23, then, Mr. McNulty, that if those claims mean that there is a physical connection between the heel band and the so-called actuating member, the machine of the defendant, as it is now built, doesn't have those articles? A. Am I to be,—

THE COURT: No, the question is now, as the machine that you saw out there is constructed, whether or not it is within that element of the claim of the McFeely patent? A. Well, you see, there comes in the question of the scope of the words, and I have testified that the structure breaks the physical connection.

XQ23 Well now then, the answer, Mr. McNulty,—I am not asking you to construe the claim, although you have done so,—but the answer is that you don't find that physical connection in the defendant's machine, as it is recited in those two claims?

THE COURT: I think the answer is bound to be yes. A. You have gone over that; there is no dispute about the structure and what it is.

THE COURT: Just as I have said, the answer must be yes,—there is no physical connection.

A. Yes, there is no attachment there, but there is a physical connection, in the sense that there is a push there.

Testimony of Peter C. McNulty (Resumed).

THE COURT: Well, the point about it is, when the machine is in operation, then there is an attachment,—there is bound to be.

A. No, you don't get what I mean. I think when you adjust in one direction the parts binding the band, adjust them by the hand mechanism physically connected with the heel band, and push them forward,—although it is not attached to it, I don't think you can say there is no connection.

THE COURT: That's the only point.

A. Yes, it comes down to a question of accuracy, as to the scope of the words, that is, the meaning that is to be given them, and that's something that a witness shouldn't talk about.

THE COURT: Well, there is no question either, that at one time when this machine was in the Williams plant, that actually the band was attached, and that it has since been disconnected and they are operating without it.

MR. LYMAN: And they are getting the same results, as one of the witnesses testified.

THE COURT: Of course, the defendant is trying to show that the actual connection which the McFeely patent calls for, is no longer in there,—isn't that right? Then, of course, it is a question of law, to be determined, whether or not that really affects it?

A. That's what I meant by saying it is a question of the scope of the words, and I am not of much use about their "scope."

MR. TOULMIN: Mr. McNulty, you and I are alike on that, but we will pass to the next claim.

Thereupon, an adjournment was taken until 2:00 o'clock in the afternoon of the same day.

AFTERNOON SESSION

Thursday, January 19, 1939.

Peter C. McNulty,

resumed the witness stand and testified as follows:

CROSS EXAMINATION

By Mr. Toulmin:

XQ24 Mr. McNulty, with reference to the McFeely patent in suit, will you tell me whether there is any

movement of the heel band, due to this back connection at the back of the band, as indicated in figure 6 of the drawing on sheet 5, with the associated mechanism, that causes that band to move vertically during the operation of the machine? A. During the power cycle of the machine, where the hold-down and jack are lifted between the first and second wipe, the band would have a vertical movement, equal to the uplift during that interval.

XQ25 And what causes the band to move upwardly during that interval, that is, what physical means,—can you give its number? A. Well, the thing that causes the band to move forwardly is the pressure of the presser plates against the side of the band, clamping it against the last and shoe, and when the last and shoe are moved upwardly by the power connection of the cam, the band moves up with it.

XQ26 How can the band move upwardly in the McFeely machine, if the back of it is firmly attached by the clip, 62, as shown in figure 6 and the members 64-60, or is there relative movement between the band 64 and the clip, 62, and rack slide 66? A. The pin 64, has a slight relative permissible movement between it and the rack slide, 66.

XQ27 Do you find in the defendant's construction, assuming that the heel band is attached with a clamp, any slidable connection such as 64, in the rack 66? A. In the defendant's construction, as I examined it last night, a set screw has been put in to unite what would be the member 64 in figure 6 of exhibit 14, solidly to what would be the rack slide 66.

XQ28 So, the answer is, there is no relative movement by such a set screw in position, is that correct? A. That's correct; of course, the band itself would have a relative sliding movement with reference to the rack slide 66, during that interval, that is, the band is moved upward in that defendant's machine, as we saw, in the upward motion between wipes, and it per se moves upward between them.

XQ29 But I am referring to a position where the band is attached by the clip to the back support; under such a condition in defendant's machine, when it is so attached, how can the back of the band move upwardly, if it is rigidly attached to the back slide? A. If it is rigidly attached, it cannot, but if the set screw is not threaded in there, the parts would go up just like in figure 6.

Testimony of Peter C. McNulty (Resumed).

XQ30 And in plaintiffs patent, in the McFeely, as set forth on page 3, at the bottom of the right-hand column, from line 130 to page 4, line 7, the heel band clamp moves upwardly for the purpose that you have just described a minute ago, is that correct? A. Yes.

XQ31 And that description says that the "slotted clip 62, attached to its rear lower edge and guided by and guided for vertically upward movement on the shank of a stud, 64, secured to the forward end of the rack slide, 66, see Fig. 6,"—that's a correct description, isn't it? A. That's correct.

XQ32 You didn't find any slotted clip in the defendant's construction? A. If the set screw is there, that portion can't move.

XQ33 Whenever you clamp a member tight with a set screw to another member,— A. It doesn't move.

XQ34 So that, in the machine out there in the hall, it couldn't move upwardly, could it? A. That's correct.

XQ35 Now, it makes no difference, therefore, as to the upward movement of the heel band of the defendant's construction, whether it is attached or disattached to any back stop, because, even when it is attached, it can't move upwardly, isn't that correct? A. If the set screw is there, it can't move up, but it may move there through that threaded hole, where it could easily.

XQ36 But we are assuming that the screw is in the back? A. Under the assumption you have made, the answer is yes.

XQ37 Will you be good enough to turn to claim 6 of the McFeely patent in suit,—I am going to direct myself to that claim with a few questions, so that you will know where to follow. Before I get into the details of the claim, I would like to get a little help from you as to your understanding of the construction of the defendant's machine. First, to start with, I will state my understanding, and if you agree with it, that will be clear. So then, to proceed, as I understand the defendant's construction, as to the tacker and wiper construction, the tackers and wipers are bolted together, is that correct? A. No, they are bolted to the individual carrier.

XQ38 But they have no relative movement with respect to each other, is that correct? A. That's right, only, if we are going to be literally correct, there is a provision for an initial adjustment previous to clamp-

ing them together, to get the holes of the tackers in the proper position with the holes of the wipers, and after they are set, there isn't any.

XQ39 I was referring to afterwards. We have shown on the defendant's construction,—or first, let's turn over by way of comparison to this chart, I mean exhibit 14, which you have, sheet 5 of the McFeely patent there before you, and I will ask you to tell me whether you find in the defendant's construction, any such thing as the spring 236, shown in figure 7 on that sheet? A. No.

XQ40 Do you have the limited stop 244, and arm 246, on the defendant's construction? A. No.

XQ41 Do you find the pin 240, in the defendant's construction? A. No.

XQ42 Do you find any yielding means, such as a spring, with means of permitting relative movement of the wiper and tacker on defendant's construction, as shown in figure 7 of the plaintiff's patent? A. No.

XQ43 Now, what do you understand to be in the plaintiff's patent,—and I will thank you to call out the numbers of the parts in the plaintiff's patent,—that responds to the last element of claim 6, namely,—"tacking units co-operating with the wiper plates and having means to maintain them in predetermined relation to the wiper plates in all positions of adjustment of said plates?" A. In sheet 3 of the patent, which is enlarged as exhibit 16,—is that in position where you can see it, Your Honor?

THE COURT: Yes.

A. The plan view is shown of the tackers and wipers. Starting at the left-hand side, we have the side tacker, the base of which is 281, and the upstanding part of which is 282. That tacker is a tacking unit that co-operates with the wiper plate, which is 254, as shown in figure 5 of the patent. And, the means to maintain that side tacker in the predetermined relation to the wiper plate in position of adjustment, constitutes a sliding block, 264, which is fastened to the base plate 280, by means of the unnumbered screw and link 284, one end of which is attached to the sliding block 264, and the other end of which is attached to the end member, the wiper plate, 254.

That attachment is best shown in figure 5, where 284 is colored violet, and the wiper plate is colored light blue. In the end of the tacking unit, which is called the corner, the head of which, or the upstanding mem-

ber of which bears the number 288, and the press parts of which,—no, I am on this other side, Mr. Toulmin; the number is 294, I am not sure from that view,—that tacker has another tacker co-operating with that left-hand wiper plate in that view 254, and the means for maintaining that tacker in predetermined relation with this wiper plate, constitute a plate which is shown in contact with the back of the wiper, which is shown in another view, figure 12, as 294. Will you please point to it there, the one that contacts with the back of the wiper plate, the tan member which is against the light blue? There's 294, now, in the plan view, where it contacts the back of the wiper plate—there.

That is maintained in contact with the back of the wiper, by means of a spring 290, which bears against an adjusting screw, 292, and the limited movement in that direction, inwardly, is controlled by that member 296, and the nut, 298. So that, by means of the parts I have mentioned, that tacker is maintained in its relation to the wiper plates. Then the end tacker, that's shown in sectional view in figure 7, is held forwardly in relation to the wiper plate, at the extreme end of the circular or blue part, by means of the spring 236, and the pin 240, and in the normal movement of the slide 224, the parts 234, which is the end tacker, have no relative movement between the slide.

But the patent says that in the first wiping action, if the tacker should strike an obstruction from the latter, the spring 236, will permit it to be released instead of continuing to push forward, as if there were no spring there. At the forward limit, to give the correct setting for the cam travel, is a member 244, in the frame which works on a slide 242, on the base of the tacker. If you go on around the other side, the parts will be the same.

XQ44 That's sufficient. And, that's the mechanism that is referred to,—that's the meaning of the "means to maintain them in predetermined relation to the wiper plates in all positions of adjustment of said plates," is that correct? A. Yes, that's right.

XQ45 Do you find that mechanism in the defendant's construction? A. Yes, the mechanism of the defendant's construction, includes the tacker and wiper carrier plate, keeping their unity, so that, as the wiper plates move, the tackers go with them and are always in the same relationship used by position of adjustment.

XQ46 And the difference between the two, as I

understand you, speaking physically now, between the defendant's and the plaintiff's construction is, that in the defendant's construction, after the adjustment has once been made, prior to operation, the tackers and wipers are fastened together and move as a unit, and in the plaintiff's machine, there's a relative movement between the tackers and the wiper, to bring about that movement that happened yesterday morning when Mr. Ryan was testifying in connection with the Model A machine, and His Honor was standing in front of it? A. Is that a fair statement of the circumstances?

XQ47 I am talking about the operation? A. You are talking about the power cycle. At the time when the tacks are driven, the relative movement that you have at the end of the first and second wipe, of course, is not so great, but the predetermined position of the parts, has been predetermined in such relationship, that the tacks drive properly with reference to the edges of the wipers, and they are maintained in that position by the parts I mentioned awhile ago.

XQ48 And they can't move relatively to one another on the hold-down? A. There may be some slight adjustment to each other, but after the tackers are,—

XQ49 I am referring, Mr. McNulty, not to the final moment, but I am referring to the complete cycle of wiping and tacking and their power to act with that situation. Let me ask you this one question,—on defendant's construction, the tackers and wipers don't move relatively to each other during that cycle, but in the plaintiff's patent of McFeely, the wipers and tackers do move relatively to each other during that cycle, as we saw yesterday,—isn't that correct? A. There's still predetermined movement in there.

XQ50 And whatever that movement is, the movement started up when Mr. Ryan was testifying yesterday in front of the model A machine? A. Yes sir, the Model A machine correctly represents what's in the patent. They both move together in both machines.

XQ51 Now, Mr. McNulty, will you go to the next claim, which, I think, is claim 42, in order. As I understood you this morning, you made the assumption that the last element of that claim which reads,—"manually adjustable means for determinately varying the amount of vertical movement of the hold-down," was in the defendant's construction, because of the assumption made in the question put to you by your counsel,—that the nut, 208,— A. That's not a nut, Mr. Toulmin, that's a lug.

XQ52 That's a lug? A. 288 is the lug with a common copper nut against it.

XQ53 They are in the defendant's construction, as shown in the Moenus catalog, Exhibit 10, rather as the construction of the defendant's machine exists in the hall, is that correct? A. Yes, that was the assumption of the question.

XQ54 Let me ask you this simple question, if that construction is not of defendant's machine as in the hall, that His Honor saw this morning, would you say that the defendant has in that machine in the hall, the last element of claim 42?

MR. LYMAN: We object to that question, if Your Honor please, as a hypothetical question.

MR. TOULMIN: There is no evidence to the contrary at this time that the defendant has taken off that adjustment since the suit began, there is no evidence for Your Honor to absolutely say,—

THE COURT: Let the objection be sustained.

MR. TOULMIN: If you decide that we have it in the hall, then there is no dispute between us,—but if this element is out, if we took it off out in the hall, then this construction, as far as this element is concerned, is not that, and that fact will bring this into sharp issue.

THE COURT: I was going to say, we went over that this morning. I think this witness may be examined at this point on that subject concerning anything to which he testified this morning, but the testimony must be based on what he said on direct examination this morning. I mean the questions must be based on that, and not on a hypothetical question which includes some assumptions that are not in the case.

MR. TOULMIN: I differ with Your Honor.

THE COURT: That is your privilege.

MR. TOULMIN: But I want to call Your Honor's attention to the fact that this witness testified as to the defendant's machine out in the hall. Now, suppose I rephrase my question and confine it strictly to that?

THE COURT: If you do that, it may be all right.

MR. LYMAN: The witness testified to the construction in the hall here as modified by the testimony of Mr. Ryan here, that when he saw the machine it had this thing out.

MR. TOULMIN: But I think I have a right to ask this question.

THE COURT: All right.

By Mr. Toulmin:

XQ55 Mr. McNulty, you have examined the defendant's machine in the hall, is that correct? A. Yes.

XQ56 You found on the side of that machine, a plate that acted as a stop, in connection with the vertical hold-down,—you know what I refer to in that connection? A. Yes, the detachable member held in by the spring screw.

XQ57 Does that part correspond in your judgment to the "manually adjustable means for determinately varying the amount of vertical movement of the hold-down?"

MR. LYMAN: We object, if Your Honor please.

THE COURT: I think you can answer that question yes or no, and then you may explain, if you wish.

A. I would like to do both. Yes, and I would like to explain that; literally, no, but actually, the member is mounted in such a way that by manually undoing and screwing, a different length member can be put in there in a few minutes, and adjusted to any other position you want to.

XQ58 Don't you understand, as an engineer, that in "manually," adjusting something, you must adjust it without using tools, such as a wrench, or a screw driver, or something; that's what "manually," means, isn't it? A. Yes, I understand your position. As I said, literally, the answer is what I said, but this is mounted detachably, with a screwed member that is readily detachable, and you can put in another length of member, if you want to.

XQ59 Let me ask you this question so as to be complete on the subject: you will agree with me, will you, that "manually" means, in mechanics, in connection with the adjustment and operation of a part, through a hand wheel or something of a similar nature, without the use of tools? A. Not necessarily without the use of tools, but it does mean a hand adjustment, and usually it has tended to be power, with some power adjustment.

XQ60 Now, Mr. McNulty, coming back to 42 again, if you would operate the McFeely patent in suit, in accordance with the teachings of claim 42, as to the cycles of movement, and using the parts recited in that claim, will you tell me whether you would have upwiping? A. I would say that whether you had upwiping or not would depend upon the design of the cam track, and the relationship in which the clamping

means was actuated to clamp the shoe with reference to the time that the hold-down is moved down. If you kept the clamping means open until the hold-down had finished its movement, you wouldn't have upwiping. If you timed it so that it would clamp simultaneously with the hold-down movement, you would have upwiping.

XQ61 And then the claim states, in the middle of the claim about line 11 of the claim, of claim 42,—this is the phrase on which I want to ask you a question,—"power operated mechanism effective to move said support forcibly to press the last and shoe against said clamping means?" A. Keep going,——"and hold-down."

XQ62 "And hold-down." That means that at that step the shoe is pressed in tightly against the heel band? A. Yes, against the back-stop, behind the heel band.

XQ63 And there's a clamp engaged between the shoe and the heel band at that time, isn't there? A. I would say no, there.

XQ64 Where is it, in that cycle? A. Keep reading,—"and to actuate."

XQ65 When is it in the cycle of operation that the heel band clamps the shoe, so that it can't be anything except a relative movement between the shoe and the heel band for upwiping purposes? A. At the time in the power cycle when the curves that would represent the closing of the heel band, would move downward on the hold-down to coincide.

XQ66 All right; now, come to the next clause of the claim,—"and to actuate the clamping means?" A. That's part of the clause you have just been reading.

XQ67 "Mechanism effective in timed relation to the clamping means to depress the hold-down and support to position the shoe bottom determinately below the plane of the wipers." Doesn't that mean, in combination with the preceding element, that the shoe has been clamped by the heel band to such degree, and then there's a relative movement which would bring about the upwipe? A. If you did that, it would bring about upwipe, but whether that specific wording limits you to upwipe or not,—I don't see that it does, because the mechanism is effective in timed relation to do those things, and it can be either before or after.

XQ68 And is it not true that the claim recites one after another element, and what they do in sequence in describing the operation of the parts? A. Yes, it gives the sequential operation.

XQ69 And if you follow that sequential operation of the parts as described in the claim, 42, you would then

have upwipe, wouldn't you? A. It all depends on how closely you follow them, Mr. Toulmin.

XQ70 Please answer yes or no, and then explain? A. Well, the steps when taken, if you actuate the clamping means first, as the words read, and then actuate the hold-down, you would get upwiping.

XQ71 Now, will you turn, Mr. McNulty, to claim 85, which you will find on page 24 of the patent, and I want to verify my understanding of your direct examination and your answers, as I understand them. That claim calls for this,—"additional power means for subsequently operating the wipers." Now, where do you find in the claim, power means already recited in the claim, in addition to these so-called power means? A. I didn't take it that the claim up to that point had mentioned power means in connection with the wipers, but I took it that the last and shoe positioning means, would include power means, in connection with the last and shoe positioning means.

XQ72 Now, to give the Court and myself the benefit again of your testimony, as to the physical differences between the defendant's construction and the McFeely patent in suit, will you again briefly tell us how the defendant's construction operates in this particular field, that is, will you describe that again,—just recite that again, will you? A. Well, the defendant's construction has a last and shoe positioning means, which as I pointed out, was the jack, and post underneath the shoe, and a hold-down on top of the shoe. Now, I didn't say anything this morning about this means, being at that time operative by power, but in any search for an extension and variation, that's where I would go to look for that. Then it says end embracing wipers, which are the wiper plates of defendant's construction,—means for effecting preliminary adjustment of the wipers and tackers to the shoe. And, in the defendant's construction you have a hand wheel on the shaft, and on the shaft they have a pair of gears, which mesh in with another pair of gears on a horizontal shaft that has a rack on it. The rack engages the upstanding shaft that has a gear toward the bottom of the first sector that has gears on it, and the sector engages gears on the arcuate part of the wiper and tacker carrying members. The wipers are attached to the underneath side of the shaft by adjusting the hand wheel, in order to get a preliminary adjustment of the wipers. Then, "additional power means for subsequently operating the wipers." This is the

cam, which, though operating the last and shoe positioning means, carries a member toward the bottom, fastened in a slide which subsequently operates the wipers. In that operation, the slide moves the vertical upstanding shaft I spoke of with reference to the racked parts, so that the wipers are carried bodily forward, and through the action of the gear with the shaft are swung inwardly while they go bodily forward. Then, next, did you want to ask something about that? Then next, "and tackers connected to the wipers for preliminary adjustment with them, and for power effected movement with the wipers subsequently over the shoe." The wiper carrier block is the member to which the tackers are connected, and the member to which the wipers are connected. It is the member which modifies the movement to those parts during the preliminary adjustment, and it is also the member which provides the swinging movement of the wipers and tackers during the power movement over the shoe.

XQ73 In defendant's construction, the large casting that carries all of this adjusting mechanism and is actuated bodily, is a large sort of a U-shaped casting, is it not? A. Yes.

XQ74 That moves back and forth and carries the adjusting mechanism, and is intended at the back to push it back and forth, is that correct? A That's correct, yes.

XQ75 Now, will you turn to the Hoyt patent, with reference to claim 19. What is the operating member that you refer to in this patent, which corresponds to that phrase in claim 19? A. You mean that phrase in claim 19 which says, "operating member?"

XQ76 Yes, just point it out by number? A. The member 188; look at figure 2,—number 188.

XQ77 188 is the equalizer? A. Yes, it is an equalizer; it is a power transmitting member, just the same.

XQ78 And 186 is a power transmitting member, too? A. Of course.

XQ79 And the bell cranks, 178 are power transmitting members? A. That's right, but the power member 188, parallels the very similar parts on each side, 184 and 176, and therefore, I take that as an operating member for both parts.

XQ80 As a matter of fact, the patent itself describes the arm, 200, which is actuated by the cam, — you will see it on figure 1, at the side, in dotted lines, Your Honor,—it describes that as the operating member,

because it is from that that the power is originally distributed in order to move the cam? A. If you will change "the," to "an," I will say yes, it is "an operating member."

XQ81 It is the only source in association with the cam, of any power movement? A. Well, the cam, of course, is the source of the power movement, but the train of mechanism, as I described it down through, from the member 200, through the slide block, and through the spring, ultimately gets up to the member 188, and if you follow through the rest of the claim, you will see that the member 188, performs the function of providing an operating member in the prior unyielding connections from that member to the presser.

XQ82 And if that arm, that 200, as described in the specifications on page 5, left-hand column, is the operating member, then we have a yielding spring 192, interposed in the path of the movement? A. Why, the patent says so; it says that transmits the movement yieldingly to the rod, and thus to the arms 158 and 160, and that's literally correct; that's what that does. But the claim calls for this operating member. From it to the presser members, there are no unyielding connections there; it couldn't be.

XQ83 You say that 188 is a power member? A. I say 188 performs the function that I understand that claim to be, when it says operating member.

XQ84 And if 200 is a power operating member, then there would be a spring in the path of the movement, wouldn't there? A. Yes, of course.

XQ85 Now, of course, the Hoyt machine won't work in pressing through the ends of the heel bands, unless there is a yielding connection between the source of the power and the ends of the bands? A. I think we have proven that.

XQ86 Isn't that true? A. That's my understanding of the testimony so far.

XQ87 This morning you made the assumption that the small spring known as the bight spring,—Your Honor, I will use that word,—

THE COURT: That's at the back of the heel band.

XQ88 Now, in answering your questions this morning, you assumed in the defendant's construction, that those two gear springs, one on either side of one of the machines,— A. I was asked to make that assumption, that's correct.

XQ89 Now, that element, or this element, consisting of those two bight springs, is defined in the last element of claim 19, is that correct? A. Yes, that's correct.

XQ90 Now, let's go down to claim 21. What do you define in the Hoyt patent as that element about the middle of the claim known as "means for supporting the band?" Will you give it a number so that I can find what you are referring to? A. Yes, I gave it two numbers this morning. The first one is the clip, 142, and the second one is the maintenance back-stop, 234, which is mounted on 236, on the supporting member.

XQ91 It is the clip 142? A. Well, the first part is the clip 142, that's the supporting clip at the rear end, and then there is also the support by the member shown in figure 6, as 236. In figure 2, the plan view, however, its curved portion is shown as 234, that's the back-stop, 236, for the portion that's mounted on the pin 144. That's the plan view. It shows this part up here, but down where it is mounted on the pin, it is 236.

XQ92 Will you look at figure 6, Your Honor,—I think that will show it to you in section up here on the board? A. You have a pin 144, which is mounted on the slide block 146, and in the block, the opening with a shoulder in it, so that pin 144, is supported in the main supporting block. On that sheet, is the member 236, which is mounted on this clear portion of 145. Now, the upper part of that member, 236, is shown in the plan view, that you are looking at, and on that is marked 234, which is the back-stop member. Now, that's the second support that I mentioned. The clip member 142, which is fastened to the back band, is also fastened to this same pin member, 144. I shouldn't say also fastened, but it is fastened to the pin member 144.

XQ93 It is the only one that is really fastened? A. That one is fastened. It is mounted,—I see around it,—the 236 member is mounted in such a way, that the pin 144, goes through it, and its outline displaced by the members above it, which, if it were drawn together upward would push against the arms of the part colored pink here above it.

XQ94 Do you contend that the clip 142, at the back of the heel band, Mr. McNulty, would do anything to attach that heel band to the back-stop in this construction? A. There would be no fastening of the heel band to the support.

XQ95 That's the same question we had this morning before lunch as to the other claims. A. Yes, it is the same situation.

XQ96 So, if the defendant doesn't have that clip, assuming that in the question,— A. It is not exactly the same situation, Mr. Toulmin.

XQ97 I haven't finished my question? A. That was relative to means for supporting the band. We were talking this morning about the word "connected," here. I said, supporting is the supporting band, against either a displacement in the direction of the axis of the sliding part of the machine, which is one form of support, and another, is the support in the direction at right angles to that, so I have given both supporting means. That's a little different from the case we were talking about this morning. Now, if you will go ahead with your other question,—

XQ98 What I wanted to know was whether we could reduce this matter down to its lowest common denominator. We have here, as one element of the situation, in connection with these claims, this same problem that we were discussing this morning, on the removal of the clip 142, as being a part of the supporting heel band in the defendant's machine,—is that correct? A. If you remove it, you eliminate what I term the vertical supporting means for the band.

XQ99 Let's go to another element of this claim 21. I am refering now to the next element,—"devices comprising arms loosely mounted on the supporting means." As I understand it, this Hoyt patent doesn't show any of the lock or set screws, whatever name you want to call them, that appear in the model exhibit 8-A on the super-imposed structure of that 533 and 532, is that correct? A. Yes.

XQ100 Now, with that understanding, is there any difference in your mind as an engineer, between pivotally mounting an arm and loosely mounting it? A. Well, just those two words there, would seem synonymous to me. You might divide or unite on that. It is a thing about which you might differ. Loosely mounted is a mounting on which a thing would turn.

XQ101 Isn't it a fact that if you have a loose mounting, that means pivot, and if you pivot, it must be loose? A. Oh! I suppose either one of them could be interfered with by something else.

XQ102 But obviously, loosely mounted means, does it not, the movement of a member about another, so that it moves about the axis of that member, about which it is moved? A. All right; it moves closely to it in some relationship. In a large group of them, sometimes they have a pin or what not.

Testimony of Peter C. McNulty (Resumed).

XQ103 In other words, you will agree with me, will you not, that in the pivot we have a constant relationship between the pivotal support and the arm, which is pivoted on it; while in the loose connection we have a movement between certain parts of the pivot that is mounted on the loose connection, and it has a stud or member supporting it, isn't that correct? A. Yes, but here you have got a specific application. By looking back at the specifications, for your definition as to what loosely mounted means, it simply means a pair of arms, not pinned to the member on which they are mounted.

XQ104 Now with that understanding of what you are going to testify to,—that you are basing it upon that interpretation, let me ask you this question. If the set screws are set so as to bear upon the back support, as they are in this model 8-A and the springs, the bight springs, are unyielding, that is, they don't give, then, under such circumstances, there would be no movement of those arms, 533 and 532, that's correct, isn't it? A. That's right. Now, you take another element of the claim next and jump over means normally operative to press the devices against the band.

XQ105 I haven't got to that yet? A. You did get to it when you brought this spring in.

XQ106 I was assuming that the springs were not operative. Under that relationship, if the springs were not operative, then the arms couldn't move, could they? A. Of course, if you lock them, then they can't move.

XQ107. The movement comes about, therefore, by having the bight springs of insufficient strength, so that they will not hold under the pressure applied by the heel bands and shoe, that's correct, isn't it? A. Yes.

XQ108 So, if we don't have those bight springs in claim 21, then we wouldn't have arms moving loosely? A. Well, you wouldn't have means normally operative to press the devices against the band, and the arms might be loosely mounted just the same.

MR. LYMAN: We have here the photographs that were taken last night that just came in a little while ago.

THE COURT: Well, that's a part of the direct testimony, and it is simply a question of identifying them and putting them in evidence.

MR. LYMAN: It might be that if we had a little more time later, the witness could put legends on them before we get away from here, so as to indicate what they are. But, I think we might take them and put them in evidence as a group, and give them exhibit numbers.

Testimony of Peter C. McNuity (Resumed).

MR. TOULMIN: I couldn't stop now to look at them, but I might like to make some suggestions as to whether they would indicate the normal operation of the machine.

THE COURT: While this witness is here, let him look at them, and later, when we recess, counsel will have a chance to examine them, and then you may offer them in evidence.

A. Let me suggest we might break them up into groups, perhaps group the parts that are particularly related to some of the claims, say, the parts relating to the heel band mechanism, and the parts relating to the tacker and wiper mechanism.

THE COURT: I think what I would do now, would be to look at them as a group and see whether they substantially represent the various parts of the machine, and then you can later work it out. But I would say look at them now and see whether they substantially represent the parts of the machine out in the hall, and then, after our recess, Mr. McNulty can be the first witness back for the purpose of identifying and offering them.

A. I directed how they should be taken.

RE-DIRECT EXAMINATION

By Mr. Lyman :

RDQ1 What are these photographs I hand you? A. The 22 photographs you hand me are the photographs taken last night of the defendant's machine and the various parts thereof.

RDQ2 They are the photographs of the defendant's machine that is out here in the hall adjacent to the Court room, which the defendant has produced? A. Yes sir.

RDQ3 And the parts were dis-assembled by the mechanic who is here, an employee of the Williams Company, who very kindly assisted and dis-assembled the parts, so that you could have these photographs taken? A. Yes, his name is Stephen Schnabl.

MR. LYMAN: I will offer these photographs in evidence as a group, the 22 photographs, and ask that they be marked plaintiff's exhibits 25-a to v, inclusive.

Counsel for plaintiff offered in evidence, a group of 22 photographs, being plaintiff's photographs of defendant's (Moenus) machine, produced by defendant, and said Photographs are made part of this record, marked **Plaintiff's Exhibits 25-a to 25-v**, both numbers inclusive, as follows:

Plaintiff's Exhibit 25-a, Complete view, left-hand side.
Plaintiff's Exhibit 25-b, Complete front view.
Plaintiff's Exhibit 25-c, Complete view, right hand side.
Plaintiff's Exhibit 25-d, Close up view, part of right hand side.
Plaintiff's Exhibit 25-e, Close up front view.
Plaintiff's Exhibit 25-f, Front view, into tacker-wiper mechanism.
Plaintiff's Exhibit 25-g, Bottom view, tacker and wiper unit.
Plaintiff's Exhibit 25-h, Bottom view, tacker and wiper unit, right hand plate removed.
Plaintiff's Exhibit 25-i, Top view, part tacker and wiper unit.
Plaintiff's Exhibit 25-j, Close up view, tacker and wiper unit removed.
Plaintiff's Exhibit 25-k, Heel band mechanism looking up from bottom.
Plaintiff's Exhibit 25-l, Heel band mechanism from bottom with machine actuated.
Plaintiff's Exhibit 25-m, Heel band mechanism, band in place.
Plaintiff's Exhibit 25-n, Heel band mechanism, band closed.
Plaintiff's Exhibit 25-o, Heel band mechanism, bottom view, band upside down.
Plaintiff's Exhibit 25-p, Heel band mechanism, from above, parts separated.
Plaintiff's Exhibit 25-q, Top view heel band.
Plaintiff's Exhibit 25-r, Rear view heel band.
Plaintiff's Exhibit 25-s, Right hand side heel band.
Plaintiff's Exhibit 25-t, Left hand side heel band.
Plaintiff's Exhibit 25-u, View of actuating parts, set screw, supporting slide, back stop, presser plates and so forth.
Plaintiff's Exhibit 25-v, Right hand side rack device, plug and nut.

At this point a short recess was taken after which the witness Peter C. McNulty resumed the witness stand and testified further as follows:

By Mr. Lyman:

RDQ4 Mr. McNulty, will you give a brief description of each one of these photographs that we have offered in evidence as plaintiff's exhibit 25, and which are now marked plaintiff's exhibits 25, a to v, inclusive? A.

These are pictures which were taken last night of defendant's machine in the hall. Exhibit 25-a, is a complete view of the left hand side of the machine, from the position which would be the left hand of the operator standing in front of the machine. Exhibit 25-b, is a complete view of the machine almost directly from the front of the machine. Exhibit 25-c, is a complete view of the right hand side of the machine. Exhibit 25-d is a close up of a portion of the right hand side of the machine, in which the circular part has been brought out and shown on the photograph as 1224-87002. On that side of the machine, the tackers, you may see the name Moenus, which was chalked there from the letters in the casting. Exhibit 25-e is a close up of the front view of the machine, looking directly into the heel band, and into the tacker and wiper mechanism. The jack post has been covered so that it wouldn't interfere with the picture.

Exhibit 25-f is a front view looking into the tacker-wiper mechanism only; that part was removed from the machine and a front view photograph taken of it. I am pointing to the wiper plates at the bottom, above which are the tacking units. Exhibit 25-g is a bottom view of the tacker and wiper unit on exhibit 25-f, in which the wiper carrier plate, the sector members are shown,—the tacking part being the slide itself, and the wipers are shown in position on the plate. The screws which hold the tackers to this plate, are shown, also, the screws which hold the wipers to the plate are shown. Exhibit 25-h is the same as exhibit 25-g, except one wiper plate on the right hand side has been removed so that the right hand side shows the complete wiper carrier member in engagement with the sector member, and the ends of the tacks are fastened at the inner edge of this member. The left hand part is the same as on the preceding exhibit. The plate which has been removed is shown in the lower right hand corner of the photograph.

THE COURT: That's supposed to be the tacking arrangement, this one?

A. Yes, you can actually see the heel. Exhibit 25-i is a top view of a portion of the tacker and wiper unit in which the cover member has been removed, so that the connecting shaft and the sector member in the preceding exhibit is displayed, this top portion with this gear may be seen, and the rack into which it meshes on the threaded shaft is shown. Just hold that for a moment. Exhibit 25-j is a close up view of the machine after re-

moving the tacker and wiper unit. I am pointing to the hand wheel which adjusts the wipers for preliminary adjustment, which is mounted on a horizontal shaft with two gears on it. The gears mesh in with a gear shown in exhibit 25-i, upon which the rack is mounted. The turn of the hand wheel turns the gears and turns the shaft in exhibit i and advances the rack member which, in turn, rotates the shaft, shown in exhibit i, and also rotates the carrier shown in exhibit h, which in turn rotates the wiper carrier member. And the wiper carrier member is mounted upon a slide in which it has a dove-tailed relation, so that when turned, it will have a swinging movement with reference to the slide. Exhibit 25-k is a view of the heel band mechanism, looking upwardly from the bottom, showing the heel band in its forwardly adjustable position upon the power driven mechanism, looking through, as I am now, pointing to it on the exhibit, actuating the rack, the bell crank lever and presser members to close the heel band. Exhibit 25-l is similar to 25-k, except that the machine was actuated to move the presser members inwardly, and since there was no shoe in the machine to prevent movement, the heel band moved inwardly to the position shown on this photograph. Then on exhibit 25-m, the band adjusting mechanism was moved backward and the band pushed back into place, as shown, and opened that way, and that photograph taken. Exhibit 25-n, is the same as exhibit m, except that the band has been closed by the pressure member, and that adjustment made. Of course, the bands wouldn't close, if there was a last in between them. Then in exhibit 25-o, the heel band, the adjusting member behind it, and the presser side members were put in place and the band turned upside down, and a picture taken of that. So, that's a bottom view of the heel band, with clips that support it and the adjusting member associated with it. Then exhibit 25-p represents the same parts looking down on them, but the parts pulled out away from one another, so that each part stands out by itself. The heel band is shown in the topview behind it, and the adjustable slide members with it, and on each side of it, one of the members of the pressing unit.

Then the next four, q, r, s and t, are different views of the heel band alone. Exhibit q is a top view of the heel band. Exhibit r, is a rear view of the heel band. Exhibit s is the right hand side of the heel band. And exhibit t, the left hand side of the heel band. Then ex-

hibits u and v are pictures of the adjusting mechanism behind the heel band. They have been marked, so that it would be better to turn them upside down to look at them. In exhibit u, the parts were taken from the machine and turned upside down so that the rack device which actuates the parts would be visible. The set screw which holds the machine members in place within the supporting slide is visible, and the back-stop, the presser plates and the parts contacting them from the yoke arms are all shown. Then in exhibit v, the right hand side one has been dis-assembled, so that the plug which has been put in instead of the spring is shown, and the nut that holds it in place is shown.

THE COURT: Are those parts so constructed that they could have a spring in there?

A. Oh! all you would have to do is to fit the block that's down here the right length and introduce a spring.

MR. TOULMIN: It is admitted that there was a spring in there.

A. The photographer said that it would be wiser to put in another set of photographs tomorrow, that these were washed, he thought thoroughly, but he would not guarantee that they would not fade in time. He will give me a set tomorrow that will not fade. He thinks it might be wiser to put those in evidence rather than put these in evidence.

MR. LYMAN: We will ask Your Honor for leave to do that.

A. If counsel would like, I can apply the same colors to them that I have shown on the other photographs.

THE COURT: I don't think it is necessary.

A. I want to express my thanks to Mr. Toulmin's man, Mr. Stephen Schnabl, for the help he gave me; he was very helpful.

Thereupon, Mr. Peter C. McNulty retired from the witness stand.

MR. LYMAN: We rest, Your Honor.

Stephen Schnabl,

called as a witness on behalf of defendant, having been first duly sworn, testified as follows:

By Mr. Toulmin:

Q1 State your name? A Stephen Schnabl.

Q2 How old are you? A I am 40.

Q3 Where do you live? A I live in Portsmouth, Ohio.

Q4 About how long have you lived there? A. Since 1923.

Q5 Where did you come from before you went there? A I came from Germany.

Q6 Have you been employed by the Moenus Company, of Frankfort? A No sir.

Q7 You have lived in the United States since you came? A Yes sir.

Q8 Are you an American citizen? A Yes Sir.

Q9 By whom are you employed now? A I am employed by the Williams Manufacturing Company.

Q10 In what capacity? A Maintenance Supervisor.

Q11 What does that mean, just briefly? A Well, it means that I have to see that all the machines in the lasting department are kept in working order, so they can go out and work at them without any trouble, and, if any trouble occurs, that it can be taken care of as quickly as possible.

Q12 Who takes care of the trouble in case there is some trouble with the machines? A I do.

Q13 You do it personally? A Yes sir, and I have one alternate.

Q14 How long have you been doing this kind of work for the Williams Company? A Since the 6th of February, 1934.

Q15 What did you do before that time? A I was with the Norfolk and Western Railroad Company since 1923.

Q16 What was the first job that you had with the Williams Company when you came there? A I was interpreter for about three months.

Q17 What was the reason for having you as an interpreter? A When these machines came,—

Q18 What machines do you mean now? A The lasting machines.

Q19 You mean the ones we have been talking about here? A. Yes, sir, these heel seat lasters, a man came with those machines from the Moenus factory, and he was unable to speak English; therefore, he couldn't make himself understood, as there was nobody at Williams who could speak German.

Q20 Did you act as interpreter for him? A I acted as interpreter.

Q21 How long did he stay there after you went to work? A He stayed until the 1st. of May, 1934.

Q22 And did you do any mechanical work with him on those heel seat lasters while he was there? A Yes sir.

Q23 Just what did you do? A Well, he fully instructed me in the operation of those machines, and we put the stops on those hold-downs, we put them in before the machines went in operation.

Q24 Before we get to the details on the machines, I want to ask you a couple more questions; when this man was there did you do any lasting of shoes on the machines? A Yes sir, I had to do lasting on those machines under his supervision, so I could, if necessary, teach any other new man on those machines.

Q25 Did you ever instruct anybody how to operate those machines? A I have, several times.

Q26 Since this man left and went back to Germany, have you done any lasting of shoes on the machines? A Occasionally.

Q27 How many machines are there? A There are four.

Q28 Are they different or alike? A They are all alike.

Q29 I want to ask you some questions about certain features of the machines. If you don't understand my definitions or the terms I use, say so, and I will change them some other way, so that we won't misunderstand each other. Do you know what is known in that machine as a heel band? A. Yes, sir.

Q30 Do you see anything like a heel band on that table there in front of you? A. Yes, sir, this is the heel band. (Indicating)

Q31 Now, I wish you would tell the Court the entire story as you know it, only within your personal knowledge, as to the connection, if any, that that heel band had with the back support at the time that the machines were delivered from Germany? A. When the machines were delivered, when I first saw these machines, they had a wing screw at the end of the band in a little clip, or rather, the heel band had a little clip, which was screwed onto a member of the machine by means of a wing screw, but that wing screw kept getting loose, since in between the two wipes, there's an upward movement, and the two side members kept going up, and the rear member stayed rigidly solid, causing some friction, and that friction unscrewed that set screw continuously, so that we lost quite a few set screws at the beginning, even while the mechanic from the factory was here, and he had me go and get some additional set screws so he

could replace them, but they got lost, and after he left, I never bothered putting them back, because the machines worked just as well without them; in fact, I believe they work better, because it gave the back of the band a chance to rise with the front.

Q32 Now, about how long did the machines continue, according to your memory, with those wing screws? A. At the change of the season, the first change of the season, I never even bothered to put them back.

Q33 What year was that, do you remember? A. In 1934.

Q34 That was the year the machines were received? A. Yes, sir, there were three machines received before I came there in 1933, and one machine was received while I was working there.

Q35 Well now, what do you mean by the "change of season?" A. "Change of season," in shoes, you have four seasons, and you are generally one season, about three months ahead of time, of when the season really changes, and when we went into the Fall season, I think it was about the beginning of July, we did away with it altogether.

Q36 Now, you say you did away with it altogether, —what do you mean by that? A. We quit buying additional set screws.

Q37 And what happened to the back heel band then, —how was it fastened, or was it loose? A. It was loose.

Q38 What kept it from falling off of the machine? A. Those two clips on the side.

Q39 Near the front of the heel band? A. Here, these two members. (Indicating)

Q40 Now, will you tell us whether anything else was done to this heel band clip at any later time, in those four machines? A. The only thing that was done to them was, I was instructed to saw them off, so that nobody could put anything in there.

Q41 Do you remember about when that was? A. That was in December, 1936.

Q42 And what did you do when you sawed them off, —what was the operation? A. I took the hack saw and severed those two prongs,—I cut those two prongs off.

Q43 Between the time that you stopped buying the screws, and the time that you sawed off the two prongs with this hack saw, were those heel bands on any one of those machines or all of them, attached to the back? A. There was none of them attached.

Q44 Since December, of 1936, when you took that hack saw and sawed off those clips, have those clips been restored at any time? A. They have never been restored.

Q45 Have the wing screws ever been restored? A. No, sir.

Q46 Have any complaints come to you about the operation of the machines because of the fact that the heel bands were hanging down in this manner? A. No, sir.

Q47 Let's go to another feature of the construction of those machines. I want you to tell the Court how long the set plate that constitutes the hold-down control that appears in that machine out there in the hall, has been on these machines? A. What do you mean?

Q48 I mean the plate that is mounted on the side and has a spring alongside of it? A. The stop?

Q49 The stop? A. That stop was installed by the man that brought the machines over here.

Q50 Did you see him place them on? A. I helped him install two on the later machines that were put into operation, at the time when I was employed at Williams.

Q51 That was while this man was here from the factory? A. When that man was here from the factory, he installed them.

Q52 And what year was that? A. That was in 1934.

Q53 Are those stops the same on all the machines, or different? A. On every one of the four machines, they have the same stops at the same place, and of the same length.

Q54 What is the purpose of that stop upon those particular machines? A. To limit the amount of hold-down travel.

Q55 Do you remember at any time about one of the machines being taken, in the Williams plant, off of the production line and put downstairs in one of the front rooms for demonstration? A. Yes, sir.

Q56 Do you recall about when that was? A. Yes, sir.

Q57 When was that? A. That was about 1936, in December, when I was told to take it out.

Q58 Who told you? A. Mr. Gialdini.

Q59 What were your instructions from Mr. Gialdini? A. I was told to yank the machine off the line and bring her down in the experiment room and set it up.

Q60 What machine did he tell you to take out? A. He didn't tell me anything; he just told me to yank a machine out of there; and I took the machine that was

nearest to the elevator and nearest to the line, so that I didn't have to dismantle any lasting line.

Q61 What do you mean by lasting line? A. We have a mechanical transportation line.

Q62 A conveyor line? A. Yes, sir, conveyor line.

Q63 How were those four machines located with reference to the conveyor line? A. There's one machine to each conveyor line, and the conveyor lines, they run lengthwise through the room, from the beginning of the operation, of the real lasting operation, unto the bottom filling operation, and the various machines are placed in that lasting line in their proper places, and the heel seat lasters are along this line. Those lasters are fairly close together,—I believe the distance is about 6 feet, and if you have to move a machine out, you have to dismantle the conveyor line to take it out, and so I took the laster that was furthest out, where there was no other conveyor line opposite, and yanked the machine downstairs.

Q64 Now, will you tell us when you took the machine downstairs, did you have anything further to do with it after it was taken down? A. No, I had to help make connections with the electrician for supplying the power.

Q65 How long did it stay downstairs? A. About 10 minutes.

Q66 I mean how long did the machine stay down,—not you? A. It stayed down over Sunday.

Q67 Do you recall what day it was put downstairs? A. It was put downstairs on a Saturday.

Q68 Now, do you know whether or not at any time any of those machines ever had the serial numbers erased on the machines, by pounding with a hammer, or by any other means? A. No, because that would be contrary to the instructions I got from the mechanic from the factory, because he pointed out that in any machine, whether it is a heel seat laster, or any other lasting machine, that if you would order any spare parts, you must not only specify the serial numbers, but you must specify the individual numbers of those machines, so the factory can refer to what machines were sold to you.

Q69 Does any one else have access to the machines to change them, except yourself, or adjust them? A. My alternate.

Q70 Who is he? A. Louis Reinhart.

Q71 How often do you alternate in the shop, do you work together or on different shifts? A. We were on different shifts.

Q72 You see the machines every other shift, is that right? A. Yes, sir.

Q73 Now, this afternoon, I think it was, Mr. McNulty referred to a set screw being placed in the vertical pin that carries that back stop; can you tell us whether that set screw has ever been changed? A. That set screw has never been changed.

Q74 Are you familiar with what is known as the cam in those machines? A. Yes, sir.

Q75 Has that cam ever been changed in any of the machines,—how many cams do you have altogether? A. We have four cams on the machines and one extra cam.

Q76 Where is that extra cam? A. The extra cam, I believe it is out in the witness room.

Q77 I will say to counsel if they want to see the extra cam they can see it. I am not putting it in evidence, because we use it as our spare in case of a break down. Now, in operating those machines, do the tackers and wipers move together, or do they move independently of each other? A. They move together.

Q78 How are they fastened together? A. They are screwed together.

Q79 Is there any means to permit them to move relative to each other when the machine is operating? A. Those screws prevent them from moving.

Q80 Were you present when the representatives of the United Shoe inspected those cams there in December, 1936, at Portsmouth,—were you downstairs? A. No, I wasn't present.

Q81 Have you ever operated the machines, any of those four machines or all of them? A. I have operated all of them.

Q82 What I meant to ask you was whether you have ever turned them over and operated them without the tackers, to observe the operation of the wipers, without the tackers? A. I had to, because I was absolutely green,—I hadn't known any shoe machines previously, and when Mr. Bender, the man, left, it was up to me to become familiar with them in case of a break down coming up.

Q83 I want to know if you have ever operated any one of those Moenus machines by taking off the tackers, and just operating the wipers without the tackers? A. Oh! yes.

Q84 Do the wipers move any differently or act any differently, without the tackers than with them? A. No, they act absolutely the same.

Q85 Do you know what I mean when I say the coil spring,—that we call the bight spring? A. I suppose I know; I have heard it so much in Court; I suppose you mean this little spring in here. (Indicating)

Q86 That's the spring that's near,— A. In that back stop.

Q87 That's a coil spring? A. Yes, sir.

Q88 Now, this machine outside here, have you got this bight spring in position in the machine or out? A. No, we have no bight spring; Mr. Gialdini instructed me to take them out about six months ago.

MR. LYMAN: Who instructed you?

A. Mr. Gialdini, our chief engineer.

Q89 Tell me whether or not the four machines have been operating since that time, so far as you know, without those bight springs? A. 16 hours every day.

Q90 Have you observed any difference in the operation of the machines prior to taking out the bight springs, as compared with since the time you took them out? A. None whatever.

Q91 Have you had any complaints from any of the operators, about the machines not operating right in the last six months? A. No, sir.

Q92 Do you recall what the serial number or the chalk number or painted number was, on the machine you took off the line to put down for inspection in 1936? A. I don't believe I do.

CROSS EXAMINATION

By Mr. Lyman:

XQ1 Where did this particular machine that is in the Court House come from? A. It came from Germany.

XQ2 No, but when it was brought to the Court House,——did it come direct from Portsmouth? A. Oh! yes.

XQ3 Are there three others of those machines now at work in Portsmouth? A. There are three other machines, yes, sir.

XQ4 In Portsmouth? A. No, there are three in Portsmouth and one at Minster.

XQ5 You mean that the Williams Company keeps one of those machines out at it's factory at Minster? A. Yes, sir.

XQ6 And the other three are located at Portsmouth? A. Yes, sir.

XQ7 And the one that is present here in the Court House was taken from the three at Portsmouth? A. Yes, sir.

XQ8 When was the other machine moved,—when was the machine that's at Minster, moved to Minster? A. It was moved in October, 1937.

XQ9 Now, have you any of these wing screws about which you are speaking that I can see? A. Have I?

XQ10 Can you produce one of those wing screws such as was put on the machines? A. On our machines?

XQ11 Yes? A. No, I have none.

XQ12 Have you any at Portsmouth? A. No, sir.

XQ13 You have thrown them all away? A. We have never re-ordered any.

XQ14 Where did you get them when you re-ordered them from time to time? A. From Germany.

XQ15 You sent orders over to Germany for more wing screws? A. Yes, sir.

XQ16 How many additional shipments of wing screws did you get from Germany? A. I think two.

XQ17 How many in each shipment? A. That I can't recall.

XQ18 When was it that those orders were placed for those additional wing screws from Germany? A. I can't recall the exact dates; you would have to refer to the shipping invoices.

XQ19 There would be records,—should be records? A. Possibly, yes.

XQ20 Showing the orders of those wing screws from Germany, shouldn't there? A. Yes, sir.

MR. LYMAN: I call upon defendant's counsel to produce any records that they have of orders for wing screws from Germany, for use on those machines.

MR. TOULMIN: We will be very glad to do that; we will look for them and produce them.

By Mr. Lyman:

XQ21 When would you say was the last time that those additional wing screws were ordered from Germany? A. I believe when the mechanic went away to stay, I believe he took an order, the last order along.

XQ22 And when did the mechanic go away to stay? A. He left the 1st. of May, in 1934.

XQ23 And what was the mechanic's name? A. John Bender.

XQ24 (Spelling) B-e-n-d-e-r, is that right? A. I presume so.

XQ25 When was it that you sawed off those clips from the heel bands? A. I sawed them off in 1936.

XQ26 What part of 1936? A. In December.

XQ27 Were they sawed off before this machine was inspected by the United Shoe Machinery Company people,—Mr. Ryan,—or after? A. I don't know who inspected the machine, but they were sawed off after it had been inspected.

XQ28 After you took that machine downstairs to be inspected? A. Yes sir.

XQ29 How soon after that? A. How soon?

XQ30 How soon after that inspection did you saw off those clips? A. I don't recall whether it was immediately, or within the next week or so.

XQ31 Who told you to saw off those clips? A. Our chief engineer.

XQ32 Mr. Who? A. Mr. Gialdini.

XQ33 He is here now in the room? A. Yes sir.

XQ34 Is that heel band that is now present on the machine out in the hall, the original heel band that came with that machine? A. No, not the original; it is a band like it; it carries the same particular number.

XQ35 Are there on the other machines, the other three machines now used, the same heel bands that came with the machines? A. Absolutely,—not the bands that came with the machines, but the same kind of bands.

XQ36 They have to be replaced at intervals, do they? A. About every six months.

XQ37 And where do you get the new heel bands to replace the old ones? A. In Germany.

XQ38 You send over to Germany for them? A. Yes sir.

XQ39 Do they arrive,—as you buy them, do they arrive with those clips attached to them? A. No, the clips are sheared off.

XQ40 Sheared off in Germany before you get them? A. Yes sir.

XQ41 You don't know how it happens that the people in Germany shear off those clips? A. No, I don't.

XQ42 But you do know that those clips when they arrive, are sheared off? A. Yes sir.

XQ43 That saves you the trouble of sawing them off? A. Since 1937, we got those clips cut off.

XQ44 How many heel bands have you got since 1937? A. I think I got ten.

XQ45 Are they in stock now? A. Well, I think I only have one in stock right now in Minster, but we always keep at least one or two in stock.

XQ46 And the one that you have in stock has it's clip sawed off? A. Sheared off, yes sir.

XQ47 How does it happen that those clips,—why don't they supply the heel band without any clip at all riveted on? A. I am not a manufacturer; I can't tell you that.

XQ48 Can you imagine any reason why, if you don't want the clip, they should supply you with a part of the clip riveted on, and then the whole thing sawed off? A. I don't know.

XQ49 That's a mystery to you isn't it? A. No, it is not a mystery.

XQ50 Why should it be done? A. I presume they make their parts over there in mass production to order for the various machines, and I believe that they just refer to the individual machine numbers to see what the definite things are for that particular machine.

XQ51 You think that in this particular machine, the defendant's requirements are that there should be no attachment for the heel band? A. Possibly.

XQ52 You say possibly? A. That would be my opinion.

XQ53 Your position is that that machine works just as well with that heel band clip sawed off, as it did before? A. As far as our product goes, yes.

XQ54 It works just the same way? A. Well, what do you mean by the same way?

XQ55 I will ask you,—does it work the same way? A. It doesn't work the same way; it gives the band a chance to align itself with the shoe, which before it didn't.

XQ56 It gives an equally good result? A. Well, it gives equally good results, yes sir.

XQ57 You haven't any heel bands with the clip attached? A. No sir.

XQ58 Which you could try and demonstrate on the machine in Court and show us how it would operate, if that set screw were in place and the heel band were fastened by this clip? A. I have none.

XQ59 You couldn't show to us that it could possibly act that way, could you,—you have no parts by which you could demonstrate that fact? A. I haven't any parts; you mean I have no heel bands with that clip on?

XQ60 Yes? A. No.

XQ61 And no wing screw with which such a heel band could be operated? A. No wing screw, no sir.

XQ62 You have none in Portsmouth?. A. None in Portsmouth. May I ask you one thing?—you refer, none in Portsmouth, to our plant?

XQ63 Your plant in Portsmouth? A. None in Portsmouth.

XQ64 Just when was it that your superintendent gave you the instructions to take out what you call the bight springs from your machines? A. That, I don't know; he told me to take out the bight springs.

XQ65 Did he give you that instruction orally? A. Yes sir.

XQ66 And you say that was about six months ago? A. Yes sir.

XQ67 That would be in about July? A. About August.

XQ68 About August of 1938? A. Yes sir.

XQ69 Did you keep the springs, the bight springs you took off? A. Yes sir.

XQ70 Can you produce them? A. Why certainly, I have got them in my pocket. (Producing Springs)

MR. LYMAN: I will ask that those springs be marked for identification.

Thereupon, the bight springs referred to, were marked for the purpose of identification as Plaintiff's Exhibit 26.

XQ71 Now, did you take out those bight springs from all four machines at that time? A. Yes sir.

XQ72 Where are the other bight springs? A. I have got them.

XQ73 Have you got them here? A. No, I haven't got them here, but I can produce them.

XQ74 Where are they? A. In my tool box.

XQ75 Out here? A. At home, in the factory.

XQ76 Where did this spring come from? A. That came from Germany there; the original spring.

XQ77 In ordering new springs for those machines, do you refer to the serial number on the machine? A. Yes sir.

XQ78 You have to do that? A. Yes sir, we always order direct from manufacturers, any place.

XQ79 Specifying the serial number of the machine? A. Not any more after that; the only thing we specify now is as per previous invoice.

XQ80 I wish you would sketch for us on a piece of paper, Mr. Schnabl, the arrangement that there was at the back of the heel band at the time when the clip and the wing screw were in there, so that it attached it to the slide,—can you do that? A. Would you kindly say it again?

XQ81 I want you to show me the relationship of the parts at the back of the heel bands, when the machines were operated as they first came in, with the heel band having it's clip on, and the clip attached by the spring to the slide? A. There was no wing nut back there, —there was a wing screw.

XQ82 Can you show me that? A. You want merely the bottom view, or what do you want?

XQ83 I want to see what happened,—a sketch that will show what happened under those conditions,—what the relationship of the parts was, so that I can see what happened when the rising movement of the last upwiping motion took place? A. Well, if you will be good enough to step over here, so I will know,—I don't know that I understand. You mean would I demonstrate to you over here, or what do you mean,—you mean you want me to show what?

XQ84 In these machines,—this model which I have here, exhibit 8-A, this collection here, as the heel band rises? A. Yes sir.

XQ85 I think it is attached to the mechanism behind it? A. Yes sir.

XQ86 And the mechanism rises with it, is that right? A. Yes sir; this doesn't rise in our machines.

XQ87 What stops it from rising? A. This is just one solid part; it is sawed off right there. (Indicating)

XQ88 Where is that little set screw that you are speaking of? A. That's underneath; if I might turn that over, I can show you right here on this. I can show you on the machine.

XQ89 Do you want me to show it to you now? A. This is not like our machine.

MR. LYMAN: Perhaps you can show it to me after the adjournment then.

THE COURT: Well, the question is withdrawn.

XQ90 Now, with reference to these stops that you speak of which are on the side of the machine,—are we talking about the same thing?—I am calling your attention to the part which is marked,—

MR. TOULMIN: On this photograph of the Moenus machine, in plaintiff's exhibit 10, at the place marked E.

A. But there is no stop in there.

XQ91 What's the device which is marked with the letter X, that you have? A. This is a screw, a sort of a holding screw.

THE COURT: There were two of those cuts there, I don't know if that's the one or not.

XQ92 You say that you don't recognize that part that I call your attention to? A. No, sir.

XQ93 You say that there was no such part ever on your machines? A. No such part ever on our machines.

XQ94 At any time? A. At any time.

XQ95 And when the machines came, there was nothing but this spring which appears below it there? A. Yes, sir.

XQ96 And no stop of any kind? A. No stop of any kind.

XQ97 And you later, at some time, yourself, supplied that fixed stop that there is on the machine at the present time? A. I didn't make such a statement.

XQ98 I misquoted you? A. I didn't supply any such stops; Mr. Bender, the man from the factory, he was the one that installed those stops.

XQ99 And you saw him do it? A. Yes, sir, because I bent one of them and drilled a hole for that, and he installed it, because the jack,—he drove me off and filed that flat surface where that stop engaged into that bell crank.

XQ100 What is that screw hole in the machine just above it? A. I don't know.

XQ101 You don't understand what that screw hole is for at all? A. I have no idea.

XQ102 And can't imagine what that screw hole is for at all? A. No, sir.

XQ103 The screw hole in the frame of the machine right close to this stop. Have you been employed at Williams Company shoe factory continuously since February, 1934? A. Yes, sir.

XQ104 February 6, 1934, I believe? A. Yes, sir.

XQ105 Have you ever been at the Minster factory of the Portsmouth Company? A. Yes, sir.

XQ106 At the time when you began work for the Williams Company, I think you said there were three of those Moenus heel seat lasters in that place? A. Yes, sir.

XQ107 And one came later? A. Yes, sir, came in February, 1934.

XQ108 The same month when you went there? A. Yes, sir.

XQ109 Which is this one that we have in the hall outside of the Court room? A. This is one of the older ones,—one of the original three.

XQ110 It was there at the time you came? A. Yes, sir.

XQ111 Are you sure about that? A. I am confident.

At this point an adjournment was taken until 10 o'clock in the morning of the following day.

MORNING SESSION,

FRIDAY, JANUARY 20, 1939.

Court met pursuant to adjournment, counsel being present on behalf of both parties.

Thereupon,

Stephen Schnabl

resumed the stand and testified further, as follows:

By Mr. Lyman:

XQ112 Have you the catalog or the parts list obtained with these machines, the Moenus machines? A. I haven't with me; Colonel Toulmin has them.

MR. LYMAN: I would like to see them please.

MR. TOULMIN: What is it you want?

MR. LYMAN: The catalog or parts list that came with these machines. (Examining booklets produced by Mr. Toulmin) Is that all that came with them?

MR. TOULMIN: As far as I know, that's all that came with them.

XQ113 Is there anything else that came, that has any connection with these machines, other than these documents that Mr. Toulmin has just handed me? A. As far as I know,—yes, there came a book of instructions.

XQ114 Where is the book of instructions? A. I believe they were all sent to Mr. Toulmin.

MR. TOULMIN: Is it a black covered thing, do you think?

A. Yes, that must be it; that refers to the heel seat wipe; that must be it.

MR. TOULMIN: Did a catalog come with it?

A. Yes, they both came together, with the invoice.

MR. TOULMIN: Is this document the one you have in mind?

A. Yes, sir.

Testimony of Stephen Schnabl (Resumed).

MR. LYMAN: I will ask that the parts list and book of intructions be marked for identification, plaintiff's exhibits 27 and 28.

Thereupon, the parts list and book of instructions referred to, were marked respectively, for the purpose of identification, as Plaintiff's Exhibits 27 and 28.

By Mr. Lyman:

XQ115 Was there any other descriptive matter relative to those machines, except these two things? A. Not that I can recall.

XQ116 I show you on one of these pages, a picture that refers to N 21995,—can you find the detail of N 21995? A. Yes, here. (Indicating)

XQ117 What does that say? A. Zugfeder.

XQ118 What does that mean? A. That means expansion spring.

XQ119 Just where in the Williams factory were those first three machines, the Moenus heel seat lasters that were received, set up? A. Sir?

XQ120 Just where in the Williams factory were the first three Moenus heel seat lasters that were received, set up? A. Where were they set up?

XQ121 Where were they set up in the factory? A. That's something I don't know.

XQ122 Hadn't they been set up at the time you arrived there? A. There were two machines, but they were not constructed properly then; the lasting line hadn't been finished; one machine wasn't in operation yet.

XQ123 Two were in operation when you started work there in February, 1934,—February 15th? A. Yes, sir, in February, 1934, February 6th.

XQ124 Another was present there in the factory, but hadn't yet been set up? A. Yes, sir.

XQ125 And the fourth one came in later? A. Yes, sir.

XQ126 What time did the fourth one come in? A. I should judge either the end of February, or the beginning of March,—somewhere thereabouts.

XQ127 Just in what position in the factory were the first two machines that were set up, at the time you arrived? A. What position?

XQ128 Yes,—where in the factory were they? A. They were on the second floor.

XQ129 In what position on the second floor? A. What do you mean,—what position?

Testimony of Stephen Schnabl (Resumed).

XQ130 Were they near the window of the building or near the wall,—can you describe the place where they were? A. All of our machines were placed,—they were setting side by side, that is, as near as I can recollect.

XQ131 Where did you set up the third machine, the one that was in the factory, but wasn't set up at the time you started working, alongside the others? A. I can't recall.

XQ132 You don't know where that third machine was put? A. I don't know.

XQ133 Where it was installed? A. It was later installed on the lasting line.

XQ134 It was later installed on the lasting line alongside the other two? A. We had two lines over here, and two machine lines over here. (Indicating)

XQ135 And where was this third machine put? A. On the same floor.

XQ136 Right near the other two? A. Yes, sir.

XQ137 Now, when the fourth machine came in, where was that put? A. That was put on the second floor, too.

XQ138 Right alongside of the other three? A. Yes, after it was uncrated.

XQ139 Did you assist in installing this fourth machine? A. Yes, sir.

XQ140 When was the fourth machine installed or set up, do you remember that? A. It was installed shortly after it arrived.

XQ141 That would be in a few months? A. No, it wasn't a few months; it was a few weeks, but I am not positively certain of that.

XQ142 And the machines, three of them, have continued in use up to the present time in that factory? A. Yes, sir.

XQ143 One of them has been sent to the Minster factory? A. Yes, sir.

XQ144 Did you tell me that the machine we have here in the hall was the fourth of the machines to be received from the Moenus Company, the one that was not received until after you had been there? A. I am fairly certain that's the last machine that we received.

XQ145 You think that this is the last machine that you received? A. I don't want to make a positive statement, but I am fairly certain.

XQ146 Were all four machines alike,—did they all look alike? A. Yes, sir.

XQ147 All the same size? A. Yes, sir.

Testimony of Stephen Schnabl (Resumed).

XQ148 Could you tell one from another by the looks of the machines? A. Well, the machines were identical.

XQ149 I am going to show you this plaintiff's exhibit 25-M, one of the photographs of the machine which was made by the photographer, day before yesterday,—that set screw there, that I asked you about yesterday? A. Yes, sir.

XQ150 What was the set screw doing,—what is it there for? A. That set screw is to keep that binding member, in my opinion, from slipping up and down.

XQ151 By the "binding member," you mean what? A. The connecting part between this and this, this underneath piece here. (Indicating)

XQ152 Will you show the Judge what you mean by that,—just point to it? A. This piece here. (The witness indicates the part marked X on the photograph.)

XQ153 This is the part, here? (Indicating) A. Yes, sir.

XQ154 And the set screw, which I mark Y, on this photograph, was removed, and this is the part, X, which you slide up and down on the housing part there? A. No, it doesn't slide.

XQ155 What good does the set screw do then? A. I don't know.

XQ156 What is the set screw for? A. To hold the bands in place, yes, that originally held the band in place.

XQ157 By the bands, do you mean this part, X, that I mark X here? A. No, that band,—this is what held this in position. (Indicating)

XQ158 Explain to the Court please, what you mean by that? A. Originally, there was a clip on our heel bands when those machines came from Germany, and that heel band was attached to this back pressure member, or whatever you may call it, and was connected here with a wing screw.

XQ159 And that wing screw went into a threaded hole in the part which I have marked, X? A. That's still there.

XQ160 Well now, you say that if you remove that set screw, still the part marked X doesn't slide? A. No, sir.

XQ161 I will ask you what the set screw marked Y, is for, any way? A. Just to hold that screw in place.

XQ162 What screw in place? A. That part in place.

Testimony of Stephen Schnabl (Resumed).

XQ163 But you say that part X, will not move in it's housing, any way, set screw or not? A. Then, I don't know then; that's an original part.

XQ164 Will you look at this part which I show you, on one of the pages of this particular book, the part to which I point here and tell me what that number is, please? A. Why, certainly; this is number 220, Zwischenhulse; that means spacer.

XQ165 And where does that go in the machine? A. That goes in here. (The witness points to gear rack on the same page.)

XQ166 These pages don't seem to be numbered? A. The pages are numbered on the bottom,—may I show you? Here's the page, "blatt," means page, 8; that alternates, one illustrated page and one descriptive page. (Referring to Plaintiff's exhibit 27, for identification.)

XQ167 Here's another photograph of the machine that was taken night before last, Exhibit 25-A, with the stop. Please point to that stop that you testified yesterday was installed by Mr. Bender. A. This stop that's behind that spring, yes, that was installed by Bender.

XQ168 Now, there are some file marks upon this lever here, out there in the actual machine, the lever to which I point; what is the original of those file marks? A. Bender put them there to make,—that's a part of this stop, so that it would stop against here, against that rack or whatever you may call it.

XQ169 He filed down the box to this lever to which I am pointing on the photograph, so as to make a seat for the end of this stop? A. That's what I suppose.

XQ170 He did that in 1934? A. Yes; no sir, two machines had that on there before I ever came there; they had installed that before the machines came on line, before the machines were put into operation.

XQ171 On the two? A. Well, as far as I know, yes, on two, they were on there, and on the last one, I helped install it myself, yes, sir.

XQ172 Was that all done before Bender went back to Germany? A. Yes, sir.

XQ173 And that was done,—that must have been before May, 1934? A. Yes, sir.

MR. LYMAN: Have you obtained those bills, or orders for more wing screws that I asked about yesterday?

MR. TOULMIN: We telephoned for them last night, but we haven't been able to get any report; the shop was shut down last night.

Testimony of Stephen Schnabl (Resumed).

RE-DIRECT EXAMINATION

By Mr. Toulmin:

RDQ1 I hand you plaintiff's exhibit No. 27 for identification, and I will ask you to state whether there's any date on this document? A. There is no printed date in there that I can see about here where it usually should be; I don't think there is any.

RDQ2 Look at this one and see if you find a date on this one? I am handing the witness plaintiff's exhibit 28 for identification? A. There's a date here.

RDQ3 What is that date? A. It refers to Zuichnung, a sketch; it says, 16th in the 11th month of 1933.

RDQ4 Do the drawings show anything? A. Yes, the drawing shows the 30th day of the 11th month, 1933, and the man was Vollhardt.

RDQ5 Do you find in this drawing, or in this description, any stop of any sort, in association with the spring, —any side stop? A. I don't find any here, no, sir.

RD6 Do you find any such side stop shown or illustrated in the parts catalog, exhibit 27? A. No.

RDQ7 Do you find in this catalog the set screw that was just referred to in the cross examination? A. Which set screw?

RDQ8 That small set screw on the vertical member that Mr. Lyman marked with the letter Y on Exhibit 25-A? A. Oh! here it is; I know what he means; here it is, N 5217.

RDQ9 Now, while we are on that subject, see what the description of it is? A. It says Stellsschraube dazu; that's the word Gleit-Schlitten.

RDQ10 Now, what does it mean? A. Stellsschraube, Gleit-Schlitten. That means prepare screw in slide; that's what the literal translation would be, what you mean by sled,—the slide; that's the slide that slides in and out.

RDQ11 Last night after you got off the witness stand, you and Mr. Lyman went out in the hall to the defendant's machine, did you not? A. Yes, sir.

RDQ12 Did you take out that set screw? A. No.

RDQ13 This little screw, I mean? A. Yes, I took it out for his inspection.

RDQ14 That was that N 5217? A. Yes, sir.

RDQ15 Did you look at the thread in it to see whether it was a metric thread or a United States thread? A. This is a special thread, with the plunger under it.

RDQ16 What is it, a metric thread or a United States thread? A. They are all metric.

Testimony of Stephen Schnabl (Resumed).

RDQ17 Did you make an attempt while he was out there to pull this sleeve, X, out of the outer sleeve? A. I did not.

RDQ18. Did you see somebody try it with a screw driver? A. No.

RDQ19 Were they able to get it out? A. No, they said it had been burned off.

RDQ20 Was it free or not? A. It is a sliding member, but it sets in solid, because it is flush at the bottom.

MR. LYMAN: Do you mean that that particular sleeve, X, cannot move down from the position it shows on there?

A. No, it can't move down; that's a fixed position; this is flush.

RDQ21 What Mr. Lyman want's to know is whether this sleeve, X, can go up, inside the outside casing? A. It can go up.

RDQ22 How far? A. It can't go up if it is not accurate but if that might be loose, it might be.

RDQ23 There is nothing to stop it going up? A. No, nothing to stop it going up.

RDQ24 With reference to the Moenus catalog, plaintiff's exhibit 10, I will call your attention to the first page, and ask you to state whether you find any date in that catalog? A. There it says W D 55; I don't know what that means; 10th month, 1934.

RDQ25 Was that date before or after these machines got to your plant? A. That was after.

RDQ26 Do you find any picture in this Moenus catalog, plaintiff's exhibit 10, of this man you call Bender, the erection man from the factory? A. Yes, there is; that's him. (Indicating) That's the man, because there's only one like him,—he is a horse.

Thereupon, Mr. Stephen Schnabl retired from the witness stand.

Arthur M. Greene, Jr.,

called as a witness on behalf of defendant, having been first duly sworn, testified as follows:

MR. TOULMIN: Now, if the Court please, as you know, of course, there are two primary defenses to a patent suit. The first one is non-infringement, which Your Honor heard called nothing this week. The sec-

ond one is the one of anticipation,—whether there are any prior patents taken out by other inventors that would anticipate the patent in suit. Your Honor, of course, is familiar with the fact, that many of our patents are found, by more exhaustive examination than the Government can afford to make, to be invalid. We propose with this witness to approach that question directly and quickly. I would have put him on last night, but in view of the fact that the Williams people needed Mr. Schnabl, thought it better to dispose of him and let him go home. I am going to be as helpful as I can to the Court, by using the color scheme as the other side did, with the charts, and I think by confining our efforts directly to the subject of those claims, and to the controversy in the claims, that we can get along better and more expeditiously.

I have had the charts in this binder colored to represent by a uniform coloring system, those parts that are directly involved in this controversy. Your Honor understands that these charts do not show the complete machine, but just those particular parts that we would like to show. If I don't go into a lot of explanation, Your Honor will understand what I am driving at. I think it will be very useful if we just go through the prior art carefully, giving Your Honor an explanation of it, touching only those parts of it that are pertinent and giving you the general run of the thing. And then, I will summarize with this witness, the essential issues so that Your Honor, when you get this case, will have something in there to determine whether you are right or not.

Now, we want to offer in evidence, as defendant's exhibit B, before I start with this witness, a binder, containing a number of such colored illustrations of the parts that are directly involved in this controversy, so that we won't have to take them out of the Court file.

MR. LYMAN: We don't agree that they are accurate. That goes rather to the materiality or pertinency of them, or, the accuracy and weight, rather than to their admissibility.

And the binder containing such colored parts, so offered in evidence, by counsel for defendant, is made part of this record marked **Defendant's Exhibit B.**

MR. TOULMIN: These are photostats, Your Honor, of the patent in question. Now, Your Honor, we filed a number of prior patents that we thought were quite

pertinent, as the result of our original investigation. We had them here in connection with the interlocutory proceeding. As you may recall, we agree to reduce the claims and the prior art, and I made a statement after that of the prior art, which reduced the prior art to certain listed patents. Now, Mr. Lyman, the patents I have in this prior art volume, are those listed in that statement. I won't stop to call off the numbers right now, but you can verify these in due season, and it may be accepted with that understanding. I have taken this prior art volume, and put our primary colors on those particular parts, so that it will tie up with the rest of the proof, and you won't have to get out of your chair. We offer this volume of prior art patents as defendant's exhibit C.

Thereupon, counsel for defendant offered in evidence, printed copies (bound in one volume) of the following listed patents, and said volume is made part of this record as **Defendant's Exhibit C.**

Copeland, et al	244,714	July 19, 1881
Lombard	524,445	August 14, 1894
Eaton	596,323	December 28, 1897
Brock	601,935	April 5, 1898
Snow	701,412	June 3, 1902
Snow	946,708	January 18, 1910
Plant	958,280	May 17, 1910
Brock	1,002,818	September 12, 1911
Keys	1,023,854	April 23, 1912
Macleod	1,030,519	June 25, 1912
Bayard	1,068,843	July 29, 1913
McFeely	1,129,881	March 2, 1915
Cavanagh	1,130,142	March 2, 1915
Stiggins	1,132,630	March 25, 1915
Brothers	1,135,945	April 13, 1915
McFeely	1,135,958	April 13, 1915
Brock	1,188,616	June 27, 1916
Merrick	1,245,117	October 30, 1917
Pym	1,368,988	February 15, 1921
McFeely	1,558,737	October 27, 1925

MR. TOULMIN: I have a duplicate copy for you, Mr. Lyman. Now, if I seem to hasten a little too much, it is because I want to get these things in. I also would like to offer in evidence, as our exhibit D, the two patents in suit, on which I have put corresponding primary colors for reference by counsel and the Court.

And the patents in suit, so offered in evidence by counsel for defendant (bound in one folder) McFeely 1,558,737, and Hoyt 1,508,394, are made part of this record marked **Defendant's Exhibit D.**

MR. TOULMIN: I also have here Your Honor, a thing that I have found quite helpful for the District Court, as well as the Court of Appeals. I have taken the photostats of the pertinent prior art and the photostats from the Hoyt patent and blended them up in a binder here, so that you can lay the whole thing out and get a bird's eye view of our concrete position as to these two claims. I want to offer that in evidence as defendant's exhibit E. If that is not strictly correct, you and I can get together and agree about it.

The binder containing such blended display of the pertinent prior art and the Hoyt patent, so offered in evidence by counsel for the defendant, is made part of this record, marked **Defendant's Exhibit E.**

MR. TOULMIN: Now, if the Court please, I think I will introduce these enlarged colored charts to be used as exhibits, and then we can go right straight through the testimony.

The enlarged colored charts so offered in evidence by counsel for defendant, are made part of this record, marked as follows:

Defendant's Exhibit F, Sheet 3, Patent No. 1,558,737, to McFeely.

Defendant's Exhibit G, Sheet 2, Patent No. 1,558,737, to McFeely.

Defendant's Exhibit H, Sheet 1, Patent No. 1,558,737, to McFeely.

Defendant's Exhibit I, Sheet 4, Patent No. 1,558,737, to McFeely.

Defendant's Exhibit J, Illustrative Exhibit based on Copeland Patent No. 244,714.

Defendant's Exhibit K, Illustrative Exhibit from Lombard Patent No. 524,445.

Defendant's Exhibit L, Illustrative chart based on Eaton Patent No. 596,323

Defendant's Exhibit M, Figure 3 of Eaton Patent No. 596,323.

Defendant's Exhibit N, Figures 5 and 6 of Brock Patent No. 601,935.

Defendant's Exhibit O, Illustrative Exhibit based on Brock Patent No. 601,935.

Defendant's Exhibit P, Figure 6 of Snow Patent No. 701,412.

Defendant's Exhibit Q, Figure 2 of Snow Patent No. 701,412.

Defendant's Exhibit R, Figures 1 and 2 of Snow Patent No. 946,708.

Defendant's Exhibit S, Illustrative Exhibit based on Snow Patent No. 946,708.

Defendant's Exhibit T, Illustrative Exhibit based on Plant Patent No. 958,280.

Defendant's Exhibit U, Figures 21, 22 and 23, of Plant Patent No. 958,280.

Defendant's Exhibit V, Figure 5 of Plant Patent No. 958,280.

Defendant's Exhibit W, Figure 3 of Brock Patent No. 1,002,818.

Defendant's Exhibit X, Illustrative Exhibit from Keyes Patent No. 1,023,854.

Defendant's Exhibit Y, Figures 7, 8, 9 and 10 of Keyes Patent No. 1,023,854.

Defendant's Exhibit Z, Figure 5 of Keyes Patent No. 1,023,854.

Defendant's Exhibit A-1, Illustrative Exhibit based on Macleod Patent No. 1,030,519.

Defendant's Exhibit B-1, Figure No. 1 of Bayard Patent No. 1,068,843.

Defendant's Exhibit C-1, Figure No. 1 of McFeely Patent No. 1,129,881.

Defendant's Exhibit D-1, Figure No. 2 of McFeely Patent, No. 1,129,881.

Defendant's Exhibit E-1, Figure 8 of McFeely Patent No. 1,129,881.

Defendant's Exhibit F-1, Figure 9 of McFeely Patent, No. 1,129,881.

Defendant's Exhibit G-1, Figure 13 of McFeely Patent No. 1,129,881.

Defendant's Exhibit H-1, Figure 18 of McFeely Patent No. 1,129,881.

Defendant's Exhibit I-1, Figure 19 of McFeely Patent No. 1,129,881.

Defendant's Exhibit J-1, Figure 1, of Cavanagh Patent No. 1,130,142.

Defendant's Exhibit K-1, Figure 2, 3 and 4 of Cavanagh Patent No. 1,130,142.

Defendant's Exhibit L-1, Copy of view based on Ely Brothers Patent No. 1,135,945.

Defendant's Exhibit M-1, Figures 9 and 10 of Brock Patent No. 1,188,616.

Defendant's Exhibit N-1, Figures 5 and 6 of Merrick Patent No. 1,245,117.

Defendant's Exhibit O-1, Figures 7 and 8 of Merrick Patent No. 1,245,117.

Defendant's Exhibit P-1, Illustrative Exhibit based on Merrick Patent No. 1,245,117.

Defendant's Exhibit Q-1, Illustrative Exhibit based on Pym Patent No. 1,368,968.

Defendant's Exhibit R-1, Copy of figure from Hoyt Patent No. 1,508,394.

Defendant's Exhibit S-1, Illustrative Exhibit based on McFeely Patent No. 1,558,737.

THE COURT: Of course, this is all subject to objection and cross examination.

DIRECT EXAMINATION.

By Mr. Toulmin:

Q1 State your name and residence? A. Arthur M. Greene, Jr., Princeton, New Jersey.

Q2 And your occupation? A. At present I am Professor of Mechanical Engineering and Dean of the School of Engineering of that University.

Q3 How long have you been in that position? A. I will complete this year my 17th year at Princeton.

Q4 Will you give a brief statement of your educational qualifications for testifying in this case as a mechanical expert? A. I was educated in the Public Schools of Philadelphia, graduating from the Manual Training School in 1889.

MR. LYMAN: I will admit his qualifications.

MR. TOULMIN: I would like to have the record show them, Your Honor.

A (Continued) I then went to the University of Pennsylvania, graduated in 1893, and returned for a graduate year, at the end of which I received my Mechanical Engineer Degree, and then was for one year at the Drexel Institute, seven years as Instructor at the University of Pennsylvania, and then went to the State University of Missouri, as Professor of Mechanical Engineering, where I remained for five years and became Junior Dean of the School of Engineering. I was called to Troy, to the Rensselaer Polytechnic Institute, to inaugurate a School of Mechanical Engineering, a department, rather, following the gift of money from Mrs. Russell Sage. I remained there for fifteen years, and was called to Prince-

ton to inaugurate an enlargement of their Civil Engineering course, and also a course in the School of Engineering. The University of Pennsylvania honored me in 1917, with the Degree of Doctor of Science, and on leaving the Rensselaer Polytechnic Institute, they were good enough, also, to honor me with the Degree of Doctor of Engineering. During my teaching career, I have taught the subject of mechanics and machine designing, and I have been a member of the Committee of Science and the Arts of the Brookline Institute, Philadelphia, which is concerned with the examination of meritorious inventions, with awards. And, during the last twenty-five years, I have served as an expert in a number of patent cases.

Q5 Now, with special reference to the heel lasting machine of the instant suit, tell the Court what particular investigation you have made in order to properly qualify yourself to discuss this matter here this morning? A. After investigating an original group of patents, and more particularly a typical group selected from that larger group, I studied as many books as I could find on the subject. I also visited shoe factories, as I had never been through those previously. I had seen shoe machines at Fairs, and also in shops along the street, but I had never carefully investigated the shoe manufacture.

Q6 Have you observed the operation of plaintiff's machine like Model A, prior to coming here to testify? A. May I have the question, please?

Q7 Did you observe in operation any machines of the plaintiff, such as it's Model A machine, in operation in a shoe factory before coming here to testify? A. I did not.

Q8 Have you seen the Model A in operation in the factory, that we examined here the other day? A. Model A, no sir.

Q9 Did you see the Model D? A. I did.

Q10 Had you seen the Model D before you came here to testify? A. I did.

Q11 Have you examined the four Moenus machines, or any one of them, such as are out here in the hall, prior to coming here to testify? A. I have.

Q12 Did you observe those machines in operation in the Williams factory? A. I did.

Q13 Have you made any study of the mechanics of those machines, as to their construction and operation? A. A very careful study.

Q14 Now, Doctor Greene, have you studied the patents in suit, so that you can tell the Court whether or not

you understand them and can explain them? A. I can and do understand them.

Q15 And you have been here during the plaintiff's testimony, have you not? A. I have.

Q16 And you have heard the testimony of their witnesses on the subject of the two patents in suit? A. I certainly have.

Q17 Now, I would like to have you take the McFeely patent in suit as the preliminary thing, devoting yourself to those parts of the patent that are primarily in issue here, and explain to the Court generally, it's operation, with particular attention to the points that you want to bring out, that have to do with the issues here, so that His Honor will have some aid in getting our point of view of this patent. If you will take the patent in suit, of McFeely and do that for us, then, we think it will be helpful? A. May I have the enlarged structure of that McFeely patent in suit?

MR. TOULMIN: I think it will be helpful, if Your Honor will turn to the enlarged copies and follow.

A. (Continued) This McFeely patent in suit, 1,558,737, has it's peculiar form, in order to care for the wiping of shoes and tacking of them, as in an earlier McFeely, but with a different arrangement of parts, to get adjustment in a different way. It also is concerned with the matter of the upwipe, which is not in this case at present, but I have to mention it because of the peculiar feature of the clip which has been mentioned so many times.

With that introduction, I would say that the defendant's exhibit H, which is figure 1, of McFeely 1,558,737, shows the housing of the machine, driven through gears, not shown, a cam well or cam box near the center, having running to it a lead-line from 118 and 121 and other members. On the face of this machine, first shown is the lever, 170, which travels in the front cam face, 172. That particular lever is connected on to a ratchet wheel, 164, and is concerned primarily with drawing the rod, 160, on which is a ratchet back into the heel bands, to produce pressure on the back of the heel band, as the first operation of this machine. You will also see, painted in red, the ratchet wheel pivoted on 86, the ratchet teeth being shown at 94, which is for the purpose of advancing the adjustable support at the back of the band. You will also note the roll, 270, in green, which is intended to move the front wiper and tacker, which cooperate together for adjusting the width at the front. Then, colored blue, is a rod which operates the hold-down, and is driven,—

MR. LYMAN: Which figure are you on now?

THE COURT: He is still on figure 1.

A. (Continued) I am still on figure 1. It moves the hold-down, and it is in brown, like the wipers going back to the link, 314, on which the wiper operator is pivoted. The spring, right near the center of the machine No. 320, is the operating device for driving the tacks.

I think it would be well now to go to figure 4 of this patent, in which we see the ratchet wheel, at the right we see the ratchet wheel 94, with this detent handle 92, that draws a pinion at the middle of the machine and advances at the part marked 64. I will come back to this patent again, if it pleases the Court, to comment upon its similarity and relation to the claims of the Hoyt patent, but just at present, I think we would save time by not mentioning that. You will note that 64 is a member solid within a frame.

If I can now trouble you to look at figure 2, defendant's exhibit G, we see the rod part in the middle, to which I have referred, and marked 66, driven by the pinion marked 88. Now, at the front of this part, Your Honor, you will find a clip 62, which supports the inner part of the band. And, the patent describes that, starting on page 3, at the last line, line 130,—"this heel clamping means includes a substantially U-shaped integral band 60, of leather or other flexible material having a slotted clip 62 attached to its rear lower edge and supported by and guided for vertically upward movement on the shank of a stud 64 secured to the forward end of a racked slide 66." Now, as has been brought out by the testimony, there must be vertical, upward movement of this, because, if you will notice, 62 has a bent up portion; but since this patent requires upwiping, which means that that hold-down 200, which is colored blue, must move downward relative to the band, and the back of the band must be supported against that motion. That is, in this patent of McFeely, 1,558,737, that upwipe produces before the side wipe of the wipers, by a downward motion of 200, as called for in the specifications, a motion you have on page 10, beginning at line 53,—"the operation of the described mechanism in lasting and tacking the heel seat is as follows: The parts in the position of rest, are as shown in Figs. 1 and 2 with the rolls engaging the cams of cam wheel 116 as shown in the plot of the cam paths in Fig. 10. In these positions, the hold-down 200 is in its highest position; the wipers and tack holding and driving units are drawn back, and the clamping band is in its fully opened position. The operator mounts

the last, with its attached upper and insole on the last pin of the jack or standard 148 and may, if necessary, adjust the toe rest 158 properly to elevate the toe end of the last. The standard is then swung backwardly as far as it may be conveniently by hand and the treadle 202." The treadle 202, Your Honor, is shown in figure 1, placed opposite the starting treadle 52. He depresses this treadle 202, which is shown, but we will not look at now,—in figure 9, I believe it is, yes, to position the last by foot.—"the treadle 202 is depressed to bring the insole against the hold-down 200 as illustrated in Fig. 9. The elevation of the contact face of the hold-down is such that the upper face of the insole will be in a plane above the plane of the lower faces of the wiper plates." Now, that means, Your Honor, that if the shoe last is in here, in this first position, you put the bottom of the last over which the leather must be placed, above the level of the wipers which are shown in green. In other words, it is well up in the band. "If a turn shoe is to have its heel seat lasted the heel portion of the sole is lifted to engage with and be turned and held back by the blade 344," which is shown in figure 9, which doesn't come into this. "If necessary because of the shape of the heel end of the shoe, the heel band may be adjusted through the hand lever 90,"—that's the one we just talked about on the side,—"and pinion 88, which in co-operation with the stop 244,"—that stop 244 is an important item, which we will see later,—"will determine the distance of the rear tacks from the edge of the heel seat, and the wipers and side tack holding and driving units may be adjusted through the hand levers 270 as previously described. The stop nut on the rod 222 may also be adjusted, if necessary, to change the amount of lowering and lifting movement of the hold-down and to vary its initial position. The last and upper are now positioned to be operated upon by the machine. Accordingly, the treadle 52 is depressed, throwing in the clutch and starting the revolution of the cam shaft 24. At the beginning of the revolution of shaft 24 (as will be seen most clearly from the cam plots in Fig. 10) the cam wheel 116 will first bring the rise in the cam surface 172 against the roll 171 of lever 170," that's the one to which I have called your attention on the outside, in Figure 1, which is this outer figure in yellow,—"to start the preliminary backward power movement of the standard and last previously described to bring the rear end face of the shoe substantially against the band before the band begins to close." That's the first operation, to force it to

the back. "After the completion of this movement, the cam surface 172 holds the lever 170 and its operating parts in the same position until the end of the cycle," when this closes down; this machine stays there until the very end;—"when the low part of the cam surface causes the lever and its ratchet-operating arm 166 to return to initial position under the influence of a suitable spring. At a point during this movement of the rise in the cam surface 172 against roll 171, the first rise in the cam surface 118 will operate against roll 121 to swing the bell crank lever 120." May I interrupt and call the attention of the Court to the bell crank lever 120, which, in this figure 2, is shaded purple. It is a lever on which is a roller, 121, rolling in the cam path of cam 118, and by means of a sector out of the bell crank lever, moves a gear wheel, which, in turn, moves 128, the part marked 128 in figure 2, and the sliding member marked 130, within which is a heavy spring.

Beginning again at that quotation,—"at a point during this movement of the rise in the cam surface 172 against roll 171, the first rise in the cam surface 118 will operate against roll 121 to swing the bell crank lever 120 in a direction to move the racked plate 130 rearwardly, closing through the previously described connections, the heel band to clamp and conform the upper tightly about the heel end of the last and substantially coincidentally, through bell crank lever 180 and its described operating connections swinging backwardly the jack standard and holding the last and shoe upper locked back against the heel clamping band." That provides there, not only for the first preliminary cam motion that holds it back, but co-operatingly, the device which clamps the band, also moves the jack back toward the band, and also forces it upward against the hold-down. "With the extremity of the shoe upper hard pressed against the clamping band, the heel clamping and jack positioning movement, terminating subsequently to the end of the preliminary yieldingly effected backward movement of the jack and before the first or breaking down movement of the wiper plates 254. Since the hold-down is being moved downwardly, in a manner to be described, to upwipe the upper, cam operated movement of rod 190 to lift the jack standard is lost motion taken up by compression of the spring 191,"—that little spring we see in figure 9. "As the cam surface 118 operates through roll 121 and its bell crank lever to clamp the end of the shoe about the last, a rise in cam surface 174,"—that's shown at the end of figure 2,—it is shown

right out here, (indicating) and this is the hold-down moving cam that I wish to come to. (Indicating) "A rise in the cam surface 174 operates against roll 221 and lever 220 to move the hold-down 200 downwardly, forcing, in turn, the heel end of the shoe and last downward relatively to the heel gripping band 60 which presses against the moving shoe and acts to upwipe the shoe upper over the sides of the last closely to conform the upper to the sides of the last in a manner similar to the upwiping action of the toe wiper plates on 'bed' lasting machines when the toe head with the wipers moves upwardly, relatively to the toe end of the shoe." So, Your Honor, we will see that the little clip wasn't put in there by McFeely accidently. It has a story, as I have read you from the patent, and it has to be there for the proper co-operation of the parts disclosed in this patent.

Q18 For what reason does it have to be in there? A. Because there's a strong pressure between the band and the heel, caused by the cam connection from the cam 118, and then when the cam 174, through it's co-operating parts, forces the hold-down to a level which the patent says is below the level of the wipers, so that the level of the top of the last is below the level of the wipers, that requires a force, not only at the start, but at the back.

Q19 And what relation has that to the feature of the McFeely patent in suit, that the invention has to the upwipe? A. How is that?

Q20 What bearing does the necessity of having the clip, 62,—I will put it another way,—what's the reason for having the back support, 62, shown in Figure 6, for the heel band 60, with respect to the upwiping operation? A. It is absolutely necessary to have it there to support the pressure brought about by this upwiping.

Q21 Now, go ahead with your explanation? A. Now, Your Honor, there is one other part which I wish to clear up. I am not sure that it was clear to you. I am sure it was on the model of the actual structure of the McFeely machine, the Model A, when you saw the movement of wipers, differing from the movement of the tackers.

THE COURT: Oh! Yes.

A. You saw that very clearly, but if it is not bothering you too much, I would like to refer,—I would like to turn, if you please, to Figure 7 on sheet 6.

Q22 Sheet 5, you mean? A. Sheet 5, Figure 7. In this particular position, the Court will note that the spring 244, forces the bands, 240,—

Q23 Just a minute, Doctor,—is that 244, that leadline? A. No, 236 is the spring,—forces the band, 240, as far to the right as it can go, as far to the left. I would call your attention to the part marked 246, which is the arm from the frame of the machine, through which the band, 244, passes a trip. 244 is the stationary band, and you will see from this picture that the wiper can't retract any further because if it does, it will have to move the band tacker, and the tacker can't move to the right, because of the band. So, we now have it in its extreme right-hand position. At the proper time, the cam, operating the part 224, which is the extreme right number moving it to the left, proceeds to move both the wiper and the tacker coincidently, because the spring 236 permits that. Now, when the band 244, strikes the other end of the opening 242, the tacker can't proceed any further to the left, and, as a result, it stays there, and any further motion it makes, as the specifications say, forces the wiper over to bend the leather its full amount. In that condition or position, the tacker would be covered up by the wiper on this end unit, as he calls this middle one. On the retraction, the first thing that happens is the wiper is retracted until it releases the pressure on the band, 244, against the right-hand end of 242, and then they move, two together, as you see here thereafter in the machine. Now, that's done the second time. The third time, however, the motions of the tacker and wiper are such that the motion is not greater than that represented by the opening in the stop, 242. Both tacker and wiper go together; the tacker doesn't cover the wiper now, and the tacks can be driven. The operation is primarily to push the wiper in its full amount and then retract it, at which time, you see, the tacker rises a thirty-second of an inch, and then you take another one of those wipes, you push it down flat and retract the full amount, and then on the third, you bring it in just far enough to put your tacks where you want them.

Now, in the inside or corner wiper, as he calls them, which is shown in figure 3, on defendant's exhibit F-1, you will note that the corner tacker and wiper are forced outward by the spring, 290, as has been explained by Mr. McNulty properly. If the motion as the actuating member, 226, at the back of this figure is made, Your Honor, before this, or rather, as this part marked 286, comes toward the last, the stop nuts, 298, jam-nuts on the rod, 296, bring the tacker to rest, although the wiper continues into it, because it is driven by the bell crank lever, 272, and the pinion, 274. Now, that happens twice. On

the third stroke, which is only a half stroke, we don't get the stroke long enough,—we may get it long enough,—but practically it is arranged so that in the last whole stroke, the jam-nut, 298, comes up to the edge of the housing, stopping the tacker, and, at the same time, the wiper is stopped.

Now, as correctly explained to the Court by Mr. McNulty, the part, 270, co-operates with a pinion, 260, moving rack, and adjusts the wiper and also the tacker. But, the Court will note that there is a pivot wiper colored green on this figure,—it is not numbered,—it is wiper 254. You will notice the wiper, 254, is connected by a pivot to the member on which the jam is travelling. And, therefore, as they come toward the center and forward, there must be a circular motion between these parts. And, as a result, it would be impossible to have these end tacks, at least, to say nothing of the others, rigid with the wiper, and for this reason, Your Honor, in my opinion, Mr. McNulty has drawn his claim, relating to those wipers, as a wiper and tacker having co-operative movement. They couldn't move together in this disclosure. And, those are the two things, Your Honor, which I would like to call your attention to before proceeding further.

Q24 Now, Doctor Greene, before you go further into the McFeely patent, it occurs to me, that it will be helpful for you to show the Court the movement of closing the outer ends of the heel bands of this McFeely patent, with respect to its construction and power device thereon, to trace that movement through, looking particularly there at figure 4 of that patent?

A. Your Honor, looking at figure 4 of the patent, which is defendant's exhibit I-1, you will see at the top of the figure, the movement, 120, of the sector which is driven by the cam. The teeth of that sector mesh with the teeth of the pinion, 124, driving a pinion, 128, on the shaft, 126, and reciprocating a block, which is connected to the part, 134, known as the equalizer, in the patent, through a spring. Then, as the operation of tightening the band against the last, the upper on the last, requires an inward motion of the end of the band, you will see that the ends of the bell crank lever, 181, must come together, which, of course, necessitates the pulling up of the equalizer, 134, and with it, the two bars, 136, which have racks on their ends, which pull on the bell crank lever, 138, and force inward the ends of the bands. Your Honor will note that there is a spring, 140, at the end, connecting the bell crank lever to the portion joining

the end of the link, within that bar, to another member, which forces the supports, the side supports of the band inward. You will also note the spring to which I referred. Now, as the Court has already mentioned, whenever we have a device such as this, or the one in plaintiff's exhibit 8-A, which closes the jaws of the band to a much smaller amount than the thickness of the shoe last at that point, there must be some yielding means. In the hand lasting or bed lasting machine, the hand is the yielding means. In this one, there are two yielding means, one at the lower point, and one at the upper point.

Q25 Where is the yielding means at the lower point? A. The spring, 100, and also, the spring within the casing above. Now, Your Honor,—

Q26 Now, just a minute, Doctor,—what is the number of the upper spring in this view, figure 4, so His Honor can have that pointed out to him? A. 128; the coil spring No. 132.

Q27 132, is it? A. No, that is not the coil spring; that's the spring merely at the top.

Q28 I mean the heavy spring,—what's the number of that,—my copy looks like 128? A. The spring is not clear in here. I think 128 is the pinion. There's a spring within the part marked 130. Now, on the question as to which one of these springs moves first,—this is a fact, of course, but academically important,—which of these springs moves first is dependent on the tightness or strength of the spring. If 100 has been tightened up by the nut, the jam-nut, 98, to a point such that it will hold under, we will say, at this point, 100, or 500 pounds, and the other one, in taking into account the various leverages, represents at the same time less force, then the upper one, will yield, and the lower one will become unyielding. In any machine, it is necessary to produce a push and pull first.

Then you must have certain unyielding parts, and of course, to guard against the overrunning of the machine, there must be some yielding part. It would be a very dangerous thing to have no yielding part in a machine of this kind, even if set up merely for one particuar size. If, however, it is necessary to go to the spring for the place at which you wish to start your unyielding parts, there is absolutely no reason why you couldn't say there wasn't any unyielding parts between the end of the part, 96, and the part at the end of the heel band.

Q29 While we are on figure 4, where does the power in operating that particular part start, and from what does it get its power? A. The operating member,

in my opinion, is that which operates it. 120, at the top of the figure is the end of the treadle lever shown in defendant's exhibit G, on the end of which is a roller, 121. This roller travels over the face of the cam, 118, operating the gear wheels, operating the part colored purple, within which there's a heavy spring, and then the equalizer bar, 134, is connected. Then, from that point, we have the parts shown in figure 4. The origin of the power from the shaft, is, of course, the cam surface and its co-operating parts.

At this point a short recess was taken, after which the witness, Arthur M. Greene, Jr., resumed the witness stand and testified further, as follows:

A. (Continued) We were talking of the springs, Your Honor, that control the motion of the parts, and I have just been out to examine the Model A machine, and I find the spring, as shown in the patent, on the model, and I also note that the spring is not a very heavy one.

Q30 Which spring are you referring to? A. I am now referring to the spring, 100, in figure 4, defendant's exhibit I. If that's a light spring, then the function is to keep the pressure outward, if clamping has to be done of any force, but then, you will note that the rod is forced inward, so that the shoulder on the pivot cross head at the end of the rod, comes in contact with the housing, and in that case, the connection would be quite similar to the connection in Model D, that is, the joint between that pin in Model D would be moved outward. It is normally against the surface in all conditions. And, in that case, we have in this patent, the same thing which the Hoyt patent discloses.

Q31 And what is that? A. That's supposed to be the unyielding connection as interpreted by the plaintiff in this case. In the defendant's construction, the operating mechanism is the cam, of course, and I would like to call the attention of the Court, for reference, to a description of that particular part, which begins at the bottom of page 4. It starts at line 130 with the bell crank lever and goes completely through the surfaces and going on, and then also the portion on page 4.

Q32 What line, Doctor? A. Beginning at line 102; the description includes the bell crank lever, 120, which is driving from the cam, 118, taking it back always to the cam, as the operating source.

Q33 Are you in agreement with Mr. McNulty that the operating part is the little cross equalizer in figure 4, which is marked, 134? A. No, I am not.

Q34 Does that furnish any power of any sort, 134? A. Well, it is a transferor.

Q35 Well, does it furnish any power? A. No, it does not, only by transmission.

Q36 It transmits power like the bell crank, 86, would transmit it? A. Yes, and like the link between two cars of a railroad train connected to the locomotive; the source of power, of course, is the locomotive.

Q37 Go ahead, Doctor? A. In looking at this figure 4, also, I would like to call the attention of the Court to the part marked, 70, which is attached to the spring and presses against the band, adjacent to the bight. According to the Hoyt patent, the bight band is defined in it to be at the rear portion, and he calls for that yielding member pressing outward, adjacent to the bight of the band. And, in anticipation of what we will discuss later, I think it might be well, just to call the attention of the Court to that, that is, that in this McFeely patent in suit, the elements of the cam in suit of the Hoyt patent, are present.

MR. TOULMIN: Your Honor understands, we are pleading the second McFeely patent, that is, the one in suit against the Hoyt, because it is a later date. It might be a little confusing.

THE COURT: Later, you are going to discuss specifically the Hoyt patent?

MR. TOULMIN: Yes, I am going to go into that, but he just mentioned it in passing.

A. (Continued) When I mentioned the McFeely patent in suit, I should have said the McFeely patent in suit, 1,558,737.

Q38 Have you finished discussing the McFeely patent, now, Doctor? A. No: I would like to call the attention of the Court to a few other things in this McFeely patent. In order to accomplish all that Mr. McFeely wished to accomplish with his earlier patent, he had to add additional cams, called by some a cam track and a cam wheel, and you will notice in this figure 2, defendant's exhibit G, there's one cam, 118, another one, 228, another one, 172, and another one, 174. The 172 merely drives the initial hold back, which continues until the end. That's the one right there, (indicating) that's new over the old one. Then in figure 9, Your Honor, in this patent, you will note the jack, or support for the heel of the laster, which is numbered,

148, in patent 1,558,737, is forced upward by a rack at the bottom, 154. There is no spring pressure in this at all. There is a small spring, 191, on the rod, 190, that's merely to prevent breaking, and does, of course, exert some force, but in the earlier McFeely patent, you will find this spring at that point, and also a spring within the housing, which does the uplifting. That is, in the discussion of uplifting in this machine, you must realize that there is a mechanical means by cams and rods, which not only operates the hold-down, but also operates the tackings. Of course, the part, 344, in that patent, is not important at all; it is just to care for a turned shoe.

Q39 Now, if you have completed your additional explanation of McFeely, will you turn for the moment, to the Hoyt patent,—have you any charts for me on that? A. Yes, I have some charts. In the Hoyt patent, 1,508,394, the claims refer to elements, the U-shaped band, or operating member, an unyielding connection between said member and band for forcing the ends of the band against the shoe. Such unyielding members could not be used between the operating member and the band. At the end, as the Court pointed out, a spring or some yielding means is necessary. The next element is a separate yielding means operating on each side of the band adjacent to the bight, which are the parts represented by the number 240, the two arms, which are pressed by the springs, within the little cylinder, 232, against the member, 246, to normally produce pressure in toward the bands adjacent to the bight. The members, 240, in this case, are supposed to be freely mounted, or, as is said here,—

THE COURT: Loosely mounted.

A. (Continued) Loosely mounted, and of course, the claims are drafted in that direction. Now, the second claim is, means for supporting the band, which is best shown and described in the patent very clearly on figure 6, sheet 4. At the lower part of that page in figure 6, the support is the part attached at 142, and the statement is made on page 4, line 74, "in order to afford support for the band at its rear end or, in other words, at the bight of the band, a clip 142 is riveted to the band at such point. The clip 142 is in turn carried by a stud shaft or post 144 loosely mounted in a carrier 146 slidable in a guideway on the head 4." The elements in that claim are devices comprising arms loosely mounted on the supporting means. Now, Your Honor, it might seem to you that we are quibbling over the support, but since the support is spoken of in this case as that which sup-

ports the loosely mounted arms, where this patent recites the word "support," it must have referred to that particular part, and not to the side support, 167. The claims recite definite things, and refer to these loose arms as mounted on the supporting means. Now, they surely are not mounted out at the end, and for that reason, I feel that Mr. Hoyt, in this patent, definitely recites the fact, that the supporting means about which he is talking is the pivot, 144.

THE COURT: I wonder if we couldn't refer to this Model 8 there?

A. Yes, Referring now to Model 8-A, we have in this figure, in this model, two arms, 532 and 533, which, if free to move, could be called loosely mounted, and the claims say, loosely mounted on the supporting means. And, for that reason, I take this whole thing, which is earlier described as supporting means, to be the supporting means described, not these outer clips. To say that these clips do not support it, would be foolish. They do support it. But in this patent, the words "supporting means," and the description of supporting means, refers to this backward part.

Q40 Do you want to continue with this Hoyt patent? A. I think I have covered the claim.

Q41 In this Hoyt patent, Doctor Greene, what do you understand to be the element in the claims, and in the specifications and drawings, that is referred to as the operating member, which is used for the purpose of imparting operative force to the extreme outer ends of the heel bands? Will you trace the line of power, as applied? A. Referring now to figure 2 of this patent, 1,508,394, the power to force the bands against the last and upper, must originate in the cam, which drives the arms, 200, and consequently, in this picture, I would say, that the operating member must be the cam, and its associated parts connected to the part marked, 200, in figure 2.

Q42 Well, if that is the operating member, do you have a yielding connection between that operating member and the outer end of the band? A. You do.

Q43 In that particular, it is the same as the McFeely patent in suit, just ahead of it, is that right? A. Yes, indeed.

Q44 The only distinction between the two being, that in the early McFeely patent, there is the addition of a light spring 100, at the extreme ends of the arms? A. Yes.

Q45 In this Hoyt patent, do you agree with Mr. McNulty, that the operating member is equalizer, 188? A. Oh! no.

Q46 Will you adopt the same answers you made as to the McFeely patent? A. Oh! yes, absolutely.

Q47 Your position is the same as to this same equalizer of the Hoyt, as you expressed it in connection with the prior McFeely patent? A. Yes, the patent calls it an equalizer; it doesn't call it an operating member.

Q48 And the large spring is necessary for the successful operation of both the Hoyt and McFeely patents in suit,—is that correct? A. Yes; I would like to add that if for any reason that part could be termed as the operating member, you might go all the way down until you came to the last pin, and of course, it is not an operating member.

Q49 In this Hoyt patent, do you find any wipers? A. There are no wipers.

Q50 Is this Hoyt patent for the purpose of heel seat lasting? A. No, it is merely,—

Q51 Where is that illustrated? A. It is merely to attach the outer sole, and that's indicated very nicely, I think, on figures 4, 5 and 6 of sheet 4. There's the hold-down,—

Q52 Also look at figure 8? A. Yes, and figure 8, also. And, I wish to say that I draw attention to these figures, because, if you will notice, in all of them, there is an inclined part to the tacker holder, which travels with that tacker holder, over the outer sole, and holds it down against the wiped and tacked last below, in order to have a firm attachment. The figure 8, to which you refer, shows the outer sole, C, placed on top of the inner sole, B, and the lasting and upper, A, which is between, and the picture indicates a nail or a staple or tack, which has been drawn in and clinched over.

Q53 Then the Hoyt machine is not for the purpose of heel seat lasting, but for putting on the outer sole? A. Putting it on,——it is a tacker. The title of this patent is, "fastening-inserting machine."

Q54 Have you any other comments on either the Hoyt or the McFeely, before we go to the prior art? A. I have not.

Q55 Now, Doctor Greene, will you be good enough to turn to the prior art patents, and compare those patents and their disclosures, with the patents in suit, first taking up the prior art, with respect to the McFeely patent in suit, and pointing out to the Court where you find, if you do, the disclosures in the prior art, that were later

made in the McFeely patent in suit, and in doing so, direct yourself particularly to the question of the claims involved in the McFeely patent in suit? A. Your Honor, the first patent to which we wish to call your attention is that to Copeland, et al., 244,714, of 1881, July 19th, which is 56 years ago.

Q56 Now, Doctor Greene, you have an exhibit here of this, and you have, as you said, I believe, started with Copeland. Before you start, Doctor Greene, will you also refer, in addition to the Copeland patent, to the exhibit J, and tell us what that is supposed to illustrate, that is,—is that found in the patent, or is it an illustrative exhibit? A. Your Honor, this patent was selected, because of it's age, and because it indicates the method used in the Moenus machine for attaching the tackers to the wipers. The perspective drawing, exhibit J, has been prepared to bring out the co-operating parts. In this device, as described in the patent, which is a very short one, we have a laster with upper mounted on a jack, which is carried on a slidable base, and is forced against,—

Q57 Will you give the colors, Doctor, as you go along; it will help us to follow? A. I beg your pardon.

Q58 Will you give the colors as you are testifying? A. The band is colored orange, and is supported on the end, which rises from the surface of the lower support colored red. Mounted above this is a pair of wipers. Connected directly to those wipers, are tackers, which are made in two parts, pivoted at the center and moved co-operatively, as they would have to, being definitely connected, and then, there is a tack supply, which comes in from the end. The wipers are moved inward, when the red part of the figure, with the jack, is moved to the right, and the rollers force the tackers in. And, of course, the relative movement, Your Honor, is the same as if the jack were stationary and the wipers moved to the left, that is, as far as the lasting is concerned, it is a longitudinal and perpendicular movement, just as you have in the Moenus machine. Now, the part that is brown, represents the tackers, and they are depressed, as stated in the patent, by a treadle, if operated by man, or by a cam, if operated by machinery. I refer merely for the record, Your Honor, to,—

THE COURT: Does this patent say operable by hand or by power?

A. As far as the picture is concerned, you can't tell, but the wording of the patent, which I would like to read, states on page 2, beginning at line 22,—"the folding

plates are provided with a series of holes or nozzles, c, which are arranged a little back from the edge of the plates, and in these holes or nozzles a corresponding series or group of drivers, E, are arranged to be reciprocated by any suitable means; and we describe as the attachment of the drivers to the hinged blocks, c', and the use of the rod d, in connection with a treadle when operated by foot-power, and a cam or lever when operated by motive power, for reciprocating said blocks." That is, the picture of the patent does not show any machine operation, but the patent definitely describes the relation between tackers and wipers. And, in claim 4 of this patent, which I would like to read, the claim is, —"In a machine for lasting the uppers of boots and shoes, the combination of the last, a jack for supporting it, the toe or heel folding plates, and a gang or group of fastening-driving devices supported and adapted to be positioned by the movement of the lasting-plates, all substantially as and for the purposes described."

Now, that's exactly the construction which Moenus has used, and it is not brought in here to show that McFeely has this, unless it is said that McFeely's operation, which is not directly connected, but must be co-operative because of the relative movement,—is the equivalent of Moenus. The patent also states on page 2, line 102,— "The heel-lasting devices, being secured at the end of the sliding plate C, are, by the movement of the toe-lasting plates inwardly caused to assume, automatically, the proper position which the apparatus should bear at the commencement of the lasting, that is, the upper holding devices are thrown forward, and the folding plates are opened." That is, this indicates that the motion of the machine prepares it for the proper relation between the laster and wiper. In this machine, therefore, I feel that we have definitely, wipers, predetermined adjustment by the part c',—means to effect the movement of the wipers. We don't have tackers co-operatively, or means to maintain them in that relation, if the McFeely scheme is used, but if the McFeely can possibly cover a definite connection between wipers and tackers, this has those two elements. This says there may be power effected movement. Of course, the power would have to be in addition to that shown here. So, I feel that this claim, if the McFeely is to be interpreted, as covering the Moenus construction, meets all of the elements of both claims 6 and 85. This is a very old patent, Your Honor, and there's only one of these pat-

entees, Mr. Brock I have met in several of the later patents, which we have discussed, which they have assigned to the United Shoe Machinery Company. Looking at the tacker, you will see that there are springs mounted on the back of the red part, which keep the wipers in contact with the roller, and when the part is retracted to the left, to withdraw the wipers, roller to withdraw the shoe, and these springs maintain the wipers in contact with this operating means.

Q59 Will you call the Court's attention to the last paragraph on page 2 of this patent, in the right-hand column, and comment upon that, if you wish? A. There is something in the left-hand column, too, that I would like to advert to. In the right-hand column, first, we read on page 2, line 115,—"Of course, we do not confine ourselves in the practice of this invention to the arrangement of the folding-plates and fastening-driving devices herein described, or to the use of fastening-driving devices adapted to drive only the 'Copeland tack strip,' so called, but we may use in combination with the folding-plates, any arrangement of devices for driving fastenings of any description desirable, and may give them any suitable location and movement in relation to the lasting-plates, the essential features being that the devices for driving-fastenings shall be so constructed and located that they can be brought in position either by their movement in relation to the last, or the movement of the last in relation to them, and the fastenings driven simultaneously, or by single impulse, while the lasting plates are holding the turned in edge upon the surface of the insole." On page 3, line 7,—

Q60 Before you do that, will you read the next sentence, following what you read? A. "The advantages of this invention are that the toe and heel, or either, can be lasted much more rapidly than by the ordinary toe and heel lasting mechanism." I also wish to refer to a few lines at the bottom of page 2, in the first column, in which it states that the devices used for driving-fastenings can be arranged in gangs or groups, which means that they could do, as in a later patent, where with one tacker unit, they have put in five or six units at one time.

THE COURT: Whil we are on this subject, are you going into the approval of these anticipated patents, such as this?

MR. TOULMIN: No, Your Honor, unless they challenge them. If they challenge them, we will go into

them, but otherwise, under the law, they stand on their face, as good anticipations. We have many authorities on that. We are not going to do that unless it becomes necessary.

Thereupon, an adjournment was taken until 2:00 o'clock in the afternoon of the same day.

AFTERNOON SESSION

FRIDAY, JANUARY 20, 1939.

Arthur M. Greene, Jr.

resumed the witness stand and testified further as follows:

DIRECT EXAMINATION

By Mr. Toulmin:

Q61 Have you finished the Copeland patent, Doctor Greene? A. I have.

Q62 Will you take up the next patent, and call His Honor's attention to what you want to take up next? A. The next patent is that to Lombard, 524,445, as in defendant's exhibit K, which is a isometric or perspective drawing, to show the parts operating this disclosure. In the figure, exhibit K, you will notice the wipers marked, 30, and colored green. These are moved by the pistons, 10, within the cylinder, 8, by means of the handle marked operating lever, 12. The last is placed on the jack, and the last holders, 19, are adjusted against the sides of the last. This adjustment controls the position of the cross bar at the front of the machine, extending from the front last holder and marked,—"means for automatically positioning wipers," and bearing the numbers in the patent, 23, 25, 29. This rod, as it is moved from the axis of the last, moves the plate, as it is shown on the drawing, so that there is a small distance for that plate to travel from the green upstanding member, to the right of the plate, until it hits the serrated edge, against which it is resting in the picture. This disance is controlled by the width of the last that determines the amount of movement of the small pinions, shown attached to the green cross bar, at which they will start to turn in the wiper member, 30, by means of the teeth on the back of that sector, so that, in a broad last, the member is so far down, that motion of the small pinions,

which can occur after the stoppage by this member, is very slight, and consequently, the member travels a very short distance. That member is so near the top of the serrated edge, that the teeth begin to turn very shortly after the pistons and plunger move, so that a great amount of motion is transmitted from the rack, marked "wiper rack," through the pinions to the wiper teeth, which are forming a sector, and a great amount of motion is made by the wipers.

You will note in the figure, that there is a pawl, 13, on the operating lever, 12. This pawl moves the cylinder, 9, which forces the heel band, 26, colored orange, to meet the last and upper. After that has reached this, the colored purple member to the front of the picture, near the detent, which goes into a ratchet bar, is arranged to hold the piston supporting the band, while the inner piston, 10, completes it's stroke to move the wipers forwardly and inwardly. The picture shows the side pressure members, 25, which you will note are connected to the lower part of the bands; and are unyielding, and as we go back from the purple colored parts in this construction, until we reach the operating lever, which moves both the band members and the wiper members. You will see that there is throughout this system, unyielding members until we finally get to the operating lever, which is, of course, the operating member in this case, handled by the operator of the machine.

The primary purpose of this patent,—one of the primary purposes,—is to show the arrangement of the rack, pinion and sector, on the back of the wiper, as an arrangement similar, as far as these three members are concerned,—not their co-operation,—to that used by Moenus in his structure. We will see in the next patent, however, the true arrangement, which Moenus has, in securing the preliminary adjustment of his wiper plates. I would like to point out the support with the band, which is colored red, mounted on the side pressure member, colored purple, the other purple parts of the figure, and the green parts which operate the wipers, and also predetermine their position.

Q63 Just continue, Doctor, from patent to patent,—that will be the quicker way, I think? A. The next patent to which I would like to call the attention of the Court is that to Eaton, 596,323, as shown by defendant's exhibits L and M. I feel that it would be better first to look at the isometric drawing, as the co-operation of the parts is a little clearer. In this figure, the wipers,

b^6, colored green and attached to a device called the wiper cam, which is a plate travelling within a circled groove, so that the motion of that cam, relative to the plate called wiper carrier, b^5, must be circular, and the center of that circle is about, substantially, the point of intersection of the two wiper plates, shown very clearly in the picture. The wiper cam is connected by links shown in the picture, to a rack block, marked on the figure as one of the members of the wiper actuating means. This block with its rack, meshes with the small pinion. This pinion, in turn meshes with another rack at the center of the device. This latter rack, is threaded to a spindle marked on this figure, "predetermined adjusting means for wipers."

If the handle actuated to this spindle is turned, I think Your Honor will clearly see that the central rack is pulled to the right or left. This immediately causes the pinion to turn, and as that pinion is mounted on a pivot or shaft within the wiper carrier, the turning of it causes the back plate shown in this figure, to advance to the left or to the right. If it goes to the right, you will clearly see that it pulls the wiper cam back toward the right, and since it is mounted within a circular groove, the only motion it can have relative to the wiper carrier, is that of the arc of a circle, and consequently, the wipers are open. Now, if the motion is in the other direction, the wipers would be closed. This all occurs before the operating lever is moved, so that this is a predetermined setting of the wiper plates by manual means. It is preliminary to motion, and after setting it, then the operating lever, b^9, is moved to the left, causing the wiper plates to advance, because of the wiper carrier being attached there, and then on account of the circular arc, the wiper plates must close in, as in this motion of the wiper plates, the central rack bar is now stationary, and the motion of the plate causes the small pinion to turn, which causes the back rack to advance beneath the wiper carrier, and causes this rotation.

I would like to call the attention of the Court to the fact that this, although different in shape, is mechanically, and as a machine, exactly similar to that used by Moenus in principle, that is, Moenus has a pair of rack bars which are advanced by a large handle, which you see in the side of the machine running to two carriers. Those two carriers run to such rack bars as these. Then, they have the pinion sector, which causes the wiper plates to turn, as you advance the wiper housing.

Testimony of Arthur M. Greene, Jr. (Resumed).

Exhibit M, is merely the patent drawing of this, and the plate, which is called here, wiper carrier, has been overlooked. Now, if the wiper carrier is moved to the right in exhibit M, which is figure 3, of the patent 596,323, the rack b^{24} is stationary. The moving of the plate to the right causes the little pinion b^{21}, to turn clockwise, that causes b^{20} to move faster and then the plate, which causes the bar b^{23} to move forward, and so rotate the wiper carrier near the cam of the carrier plate, so closing the wipers, as they advance to the right. Now, if the handle b^{27} be turned, then the member b^{24}, takes a new position. The wipers are originally open, more open than they are closed.

Q64 I might ask you one question there, Doctor, that I am not quite clear about, I will admit; it may help us. We have been talking about the forward end of the heel bands, and at the bight of the heel bands,—do you have in this construction any inelastic construction between the ends of the heel bands and any presser members in this construction, on exhibit L? A. The colored heel band is shown, marked toe band, which is supported by the red member marked detent support, and then on the side, we have a pressure member, that is called side pressure member. The patent drawings, Your Honor, if you would refer to them for just one moment, show in figures, —this is 524,445,—this shows in figures 5 and 6, the band, 26, and the pressure member, 27, attached to the rod carrier and on turning to figure,—

Q65 Are you looking at the Eaton now, or Lombard? A. We are still on Lombard,—on the Eaton figure; on the Lombard figure, the band 26,—

Q66 Are you referring to the Eaton patent? A. I did refer, Mr. Toulmin, to the Eaton patent. In the Eaton patent, on figures 3 and 4, we find the yellow heel bands with the pressure members, pressing in on the supports. These pressure members being operated by a cross link, and then in figure 4, we note that the back of the band is supported on a pivot, which is colored red.

Q67 Do you have any pressure on the bight of that band? A. This is attached to the bight.

Q68 Now, go to the next patent, then, Doctor? A. The next patent to which I direct the Court's attention, is that to Brock, 601,935. As shown in defendant's exhibit O, in isometric form,—and parts of that structure are shown in defendant's exhibit N,—which is a reproduction of figures 5 and 6 of the patent. Referring now to exhibit O, it will be noted that there is a jack, m^1,

supporting the last, N, and the last, N, is placed within the heel band, of orange color d^1, on the outside of which is the heel band support, indicated in red, which is fastened at the bight of that band into a supporting member. Then, outside of the heel band, we find the side pressure members d^4. These pressure members, d^4, are indicatd in exhibit N, figure 5. And the Court will see in the isometric drawing of exhibit O, that this part, which is provided at the point marked pivot for side pressure member, d^3, has an arm, through which the bight or bolt, e^1, figure 6, of exhibit N, passes and those two parts are pivoted together by the pin shown on exhibit N, marked d^5.

So that, we have co-operating together in exhibit O, the bar, which is called side pressure member, made up of parts pivoted together and held in any given position by the spring. These co-operating parts around the spring being shown in exhibit O, by the parts marked, "adjustment for side pressure member and wiper roller." Now, if Your Honor please, you will find in figure 6 of exhibit N, roller, marked d^2, and this roller which is mounted on a pivot, is the roller over which a curved arm of the wiper cam travels. The back roller is shown in position marked d^2, "roller for moving wipers." This cooperates with the curved part, marked "wiper cam," which is connected to the wiper, f^3. So that, if these rollers have moved, the wipers are initially changed in position. They, of course, open or close the wipers, which are provided at the center, shown in the figure at the end of the green bar, which is the operating bar for the wipers. Now, if that bar is moved by the operating lever, as it actually is, after the pin of that operating lever reaches the end of the opening in the bar, marked "wiper actuator," f^3, any advance will cause the cam end of the wiper to move in a circular arc, to this center, so that the wipers will have a forward and circular inward motion, to wipe over the upper against the last. Now, this pin as shown in exhibit N, is an operation of two parts, which becomes unitary on account of the spring wing nuts, e^3, which are provided at the front pawl of the part D on figure 5, of exhibit N, marked on exhibit O, as "pivot for side pressure member."

This means, of course, that as we open or close the member on which the spring is mounted, and called "adjustment for side pressure member and wiper roller," that moves the pivot pin, through which the wipers move, and consequently it will change its position. Now, the

movement of the operating lever, moves the pin, marked on the figure f⁹, "means for positioning wipers and clamping heel band." That is, as the handle of the operating lever, f⁶, is moved to the left, the first thing that happens is, that this lower pin, moves through cam slots, shown as e¹, on exhibit N, separating these pressure members, producing pressure on the band at the two sides, and, as soon as sufficient pressure is applied, the wiper actuator is moved so far to the left that the pin on top of it, to which I have already referred, strikes the wiper actuator, and the wipers begin to move.

This exhibit O shows very clearly, the wipers, the manual adjustment of the wipers, the means to move them, the band which is the support of the last, the pressure on the opposite sides of the band that supports on the side the means for producing this pressure, as well as the wiping mechanism. The predetermined location of the wipers will be found on page 1, line 68. "The principal object of my invention is the production of a lasting machine wherein the lasting devices, whether in the form of wiper-plates or otherwise and whether located at the heel, toe, or elsewhere, may be predeterminately positioned at the same distance from the outside of the last whatever be the shape, size or width of the last." On page 3, line 119, we find the following,—"The shifting of the positioning devices to adapt themselves to different angles of lasts acts through the roller-studs d⁹, to automaticaly shift the wiper plates also into positions in alinement with the median line of the last, so that they, as shown in Fig. 8, will move forward and back uniformly at opposite sides of the last."

On page 4, line 45, we find this,—"Thus in the present embodiment of my invention the positioning devices by varying the starting positions of the wipers necessarily vary the limits of the inward or lasting movements thereof, and by thus varying the lasting movements of the wipers or lasting devices insure in advance, that is, predeterminately,—the positioning of the said devices at the same distance inwardly from the sides of the last, whatever be the width of the latter, and this positron or distance is nevertheless predeterminate, whether such position be regarded as the most inward position of the wipers or any intermediate position into which they may be moved or backed during the return movement of the wipers, for into whatever position they may be moved such position will always be the same relatively to the sides of the last for both wipers or lasting devices, and

such position in each case is fixed in advance or predetermined by the positioning devices."

The next patent, Your Honor, is that to Snow, 701,412, as illustrated in defendant's exhibits P and Q. The primary purpose of this patent, as far as this case is concerned, is to show in exhibit Q, where unyielding members were needed to force outward or inward a part, that the members, 42, in exhibit Q, are unyielding members, pivoted at 41, exhibited at the back at 43, and the cross bar, 44, which is shown in exhibit P, is connected through a movable part a^1, to the end lever marked 12. This purple part is the part which forces the bands in at the sides. You will note that we have colored the member, 12, both purple and green, since it has both purposes at the start. After the band, however, has been held at the proper place, the lever, 48, moves the member 49, so that further motion of the handle, 12, moves the wipers forward and inward, the band being held, as shown on exhibit P, by the detent, 45, in that ratcheted bar.

It is also well to note that this drawing shows,—I am now talking about exhibit Q,—at 22, along the lower edge of the wiper plate, a thumb catch, by which the end of the wiper plate can be taken out and moved to the other side, if you change from right to left. This could be said to be a predetermined arrangement of the wipers. Of course, it is not the same as the screwed part, but it really is a predetermined method of changing the initial position of those wipers. The wipers, Your Honor, are pulled together, inward, as they move forward, by the rollers, 17, to which the cam slides, 16, and the wiper plates move.

Q69 In this patent to Snow, Doctor, do you find any means of supporting the back of that heel band? A. Yes, there is a support at the back of the heel band marked 32, on exhibit P, and this is continued downward through the clip, to a point near the lower part of the band. In the exhibit marked Q, you haven't the set band. Now, if we go to the patent, you have there tackers shown on figure 3 of the patent itself,—it is sheet 2, figure 3, of patent 701,412,—the pin, to which I have referred,—marked 32,—fits into the central part, and the other figure shows the method by which it is connected to the heel band. Figure 4, while you are looking at this sheet 2, shows more clearly the method of removing the front of the wiper marked R, and taking it over to the other side, reversing it and using it on the left.

Testimony of Arthur M. Greene, Jr. (Resumed).

We now come to another Snow patent, 946,708, as shown in defendant's exhibits S and R. I am not sure, Your Honor, but this structure is very similar in my own mind, to the drawing, or the photographs which the plaintiff introduced, and I think are their exhibit 1. If you will recall, there was a bed lasting machine, and it looks quite similar, although I am not sure that it is. In this machine, as disclosed in the patent, referring now to exhibit S, of the defendant, there is a wiper, 40, moved by the operating lever, 48, on the wiper, and then a heel band, colored orange, mounted on the chain which has its side pressure members that are moved by the operating rod for the band.

If you will now turn to exhibit R, you will find that this member, 24, is connected by a spring and linkage, to the bell crank lever, 26, which may be operated by a cam. As we look at this, we see that there is a band supported at the bight with side pressure members that are non-yielding throughout until you get to the spring on the lower part of 24. This being a machine controlled movement by the bell crank lever, 26, moving into the position shown by the slotted and dotted points, there must be, of course, a spring connection, a yielding connection between. And from the stop members over to this operating part, we have the spring between operating member, 46, and the other part, but up to the spring, everything is constructed, so that it will transmit both tension and operation. If you look now at the exhibit S,—

Q70 Just a minute, Doctor, right there,—how does this construction with the unyielding connections at the outer ends of the heel bands, and the spring adjacent to the bar, concerning mechanical power source,—compare with the construction you have mentioned in the Hoyt patent that we have been discussing? A. It is the same thing, the same as the Hoyt patent.

Q71 All right; go ahead? A. If we now look at exhibit S, we will see that there are corner pressure members, 30, which are bent members moving over pins, as shown in exhibit R, at point 33, and moving up a wedge shaped member, 35, which is mounted on the cross bar, 20. These members, 30, 35, cross bar, 20, member 24, produce a pressure at points adjacent to the bight of the band. The member which does this, is freely moving through the pins, to adjust the pressure to various forms of heel last, so that in this patent, we have disclosed, as far as the heel band is concerned, a support at the rear end of the band, a pressure member at the side, applying

pressure above the bottom of the bands, operating means to apply this pressure, and also, freely moving members, producing pressure at point adjacent to the bight of the band. Coming now to the wiper, we find that the wiper, 40, is moved by the wiper operating lever, 48, through the cross member, colored green, and the wiper cam, also colored green, so that as this wiper advances, it closes in over the last of the shoe, to wipe down the upper.

In this disclosure we see clearly represented the U-shaped band, the unyielding connections, as far back as the yielding member, separate yielding means adjacent to the bight of the band, and means to support the band and pressure to the wipers, which can be moved so as to wipe down the upper over the last.

The next patent is that to Plant, 958,280, defendant's exhibits T, U and V. Referring first to exhibit T, the operating lever, 9, moves the wiper member, which has within it, circled slots, through which pins, attached to a plate, pass, and as forward motion is given to this wiper, it is caused to move inwardly as well. The exhibit also shows heel band colored yellow, with the heel support, red, side presure member, 104, in purple color, carried over to the operating bar for band, 109. Now, if we look at exhibit V, we find that the bar called operating bar for band, 109, has a spring attachment, 110, which is moved by the lever, 111. In this case, we have side pressure on the bands, from unyielding members, back as far as this spring.

Noticing now in either exhibit U, the pin connection, 198, at the bight of the band, controlled by the pinion, 199, or, in exhibit V, the support, 101, at the bight of the band, held in position by the set screw, 103, and moreover, in exhibit U, if we go to the bottom of it, we find the support extending out over the bottom; 186, and we have in this, a band, supported, in the words of Hoyt, at the bight, which is adjustable, and then pressure is applied at the sides of the band by these colored bars, purple, which are solid as far as the spring.

Looking at exhibit U, we find in figure 23, at the bottom of that exhibit, the part, 188, which extends out and has 186, below it, in the upper figure, and then we have the side supports, 183, which are not numbered in the top, however, but the rivets, or supports attaching that side support to the bands are shown.

The figure, as shown in exhibit T, also, has indicated at the left, the predetermined adjusting means for the wiper, designated in the patent, as parts 69, 70 and 71. By moving the handle, after lifting the pin at the center,

and shifting the handle to one of the other holes shown in that view, we can predetermne the position of the wipers, as shown in this drawing, and also very clearly shown in the patent on sheet 11, figure 18, of patent 958,280. In this figure, 18, the bell crank lever,—practically it has a handle, 69, attached to it, can be moved from position 70 at one center, over to the other pin holes, marked 71. In doing that, the front edge of the wiper assumes one of the curves shown over in the front of the figure. Right under the number, 50, is a dot and dash line, indicating the extreme position, and then the solid line represents one of the other positions.

This disclosure gives wipers with manual adjustment, method of moving the wipers, U-band, the support for the last, the moving adjustable parts, and the opposite side supports, side pressure members above the lower edge, means for adjusting and to operate the pressure members, as well as the wiping mechanism.

Q72 Is this a power machine, Doctor Greene, employing cams? A. There is a cam, and the figure indicates power means for accomplishing parts of the action of this machine. There are certain parts which I have not described, which were in the case originally, but we have not referred to them.

Q73 Don't go outside of what I wanted to call His Honor's attention to. You say this is a power machine,—it has cams for controlling the sequence of the operation, is that correct? A. Yes, they control part of the things. Of course, the handles are independent of this part, but the cams do control certain of the operations.

Q74 Go ahead? A. The next patent to Brock, 1,002,818, as shown by defendant's exhibit W, is used in connection with the later Pym patent, and I will refer to it again at that time. It is used in the Brock patent 1,188,616, and of course, in that patent, this particular structure is covered only, so that it is well to keep this one in mind when we come to that patent. The patent discloses a yellow band, or orange band, 146, with a supporting member, in rod 270, which is connected at the end to the operating member, 194. And, it will be noted, that in this pressure member, alternations can be made by the nuts on the two sides, enabling you to advance or retract the support from the center line of the laster. Then, there is an unyielding member, which extends from 194 down to the cross bar 190, which is attached to the proper member at the center part, 108, of the patent.

Testimony of Arthur M. Greene, Jr. (Resumed).

If the Court will please turn to figure 2, on sheet 1, of this patent, you will see the method of supporting the band corners, the outer corners of the band. There is a hook member, 272, which is formed on the up-turned member, 275, which enables the heel band itself to move in that support, whenever the configuration of the last, as it comes closer to the center, would raise the heel band, and require greater length relatively than the member outside. Of course, then, after that, with this straightened out in the last, the adjoining member would be longer if not of smaller radius, and so, if the configuration is changed in any way, that band will be there to move outward. The band is carried as you will see in figure 1, of sheet 1, by a support at the bight, with the member, 271, which fits into a hole. Although probably used in this position, it is perfectly possible to adjust it otherwise; there would be no need of having it extend as shown. The driving member for this structure will be seen when we come to the later patent, which is Brock 1,188,616.

This patent shows the U band. The support for the last is not indicated, but of course, to use it, there would have to be only the movable adjustable member, which is the support, the side support, the pressure members on the side, and the operating devices for the side pressure members. But there is no wiper mechanism shown in this, although on a scientific approach, we will see the wiper mechanism. And also, in that other patent, we may find that power means could be applied.

The next patent is to Keyes 1,023,854, for a device to act at the forward end of the heel, and to drive two tacks only in the lasting position of the welt, as shown in figure 6, on sheet 3. The two black dots are the tacks driven by this operation. The tacker is shown best in defendant's exhibit X, which is in the frame of the machine, shown in figure 1, of the patent, but is moved inwardly by means of the brown pinion. At the proper time a cam, a clutch is moved, so that a positive stroke is taken by bars to drive down the two tacks in each one of these tackers. The part, 60, is a wiper, and part 50, is also a wiper, to force the member beneath the welt. Looking at this exhibit X, we see the pink members or outer arms, also pink, just inside of the gear wheels, 8. To see the connection of these parts, we turn to exhibit Z, in which the pinion part, to which I have just referred, is marked 10, and as it is turned by the rack member, it causes the bell crank lever, 15, to force in the side mem-

bers of the bands, marked 36. This is done simultaneously on the two sides of the shoe, and at the same time, this is happening, the brown part on the shaft, 10, is moving the wiper and tacker into proper position.

Now, these are shown nicely on exhibit Y, in figure 8, on which we have marked green the wiper part, marked purple the pressure part, the band clamp, or rather, the band, is marked orange, and the supporting means is marked red. In both exhibits, Z and Y, there is a support which is adjustable at the bight of the band. There are side pressure members bringing in the proper pressure control, by the spring 20. The picture also shows a hold-down, 68, which co-operates with the jack, 65. The particular feature of this patent is the fact that the tackers on the machine operate, or are associated with the wipers, and there are pressure members, which are applied to the side of the heel band, which is supported at the bight, by an adjustable member.

Q75 Before you leave this patent, Doctor Greene, will you tell us whether there is any means of fixing adjustment between the wiper and the tacker; if so, please point it out? A. The tacker has to drive its tack through the wiper, and therefore, there could be no adjustment; they must move together. If you look at figure 8, the tacker member,—it looks like 150, in each of those figures,—has to pass down through the member called the wiper, 60, and if there was any relative movement, that tack couldn't be driven. The whole part, though,—looking now at exhibit X,—is moved by the pinion to which I have referred earlier, that moves the tacker inward, and of course, with it, the wiper, 60, must move, that is, here, we have association of the two together.

Q76 May I ask whether there is any nut, bolt or slot to permit of some adjustment between them before they begin to operate? I call your attention to figure 2 of the patent? A. There is adjustment, but wait,—the adjustment, in my opinion, is to allow the wiper and tacker to go in further over the last, but in order to drive the tacks into the part of the upper beneath that wiper, there would have to be a hole through the wiper to allow the tacks to pass.

MR. LYMAN: May I ask that the witness state again what the principle purpose of the citation is. He has stated, but I didn't get it down, and we don't have a transcript of the reporter's notes?

Q77 Doctor Greene, will you re-state what the principle purpose for this reference is, that is, you are using

this patent primarily to show what? A. The patent is primarily used to show wipers, adjustment for the same, the movement of the wipers, as indicated in figure 8,—the tackers co-operating with them in fixed relation, however, as in the case of Copeland and Moenus,—a U-shaped means to maintain them in the relative position, U-shaped heel bands, and movable adjusting member attached to the bight side supports and pressure members on the side, applying pressure above the bottom, means to operate these pressure members, a hold-down, and in this machine, also, we have power means to operate the machine from the shaft 85, and operation of the wipers on the side pressure members.

Q78 All right, Doctor, go ahead with the next one now? A. The next patent to Macleod, 1,030,519, is given on defendant's exhibit A-1, which is an isometric drawing prepared from the patent drawings. This shows the yellow heel band, or orange heel band, with the supporting members in red, and supported at the bight of the band with side pressure members that are equalized by part marked, 22, "means for equalizing top and bottom side pressure." There is an operating plunger, 31, attached to a cross head, 33, which, through links, drives the slide bar, 36, and forces the end members marked top and bottom side pressure members, —outward. The patent shows the unyielding members running back to the forward yielding part of the operating plunger. Of course, that is not indicated here. The support for the jack is indicated in the patent; the support for the opposite sides are shown by the clips marked "heel band support," 14. There are means to operate the pressure members. The drawing, A-1, indicates very clearly the various pivoted joints. And, also, the slide bar, 36, has on its face, a wedge shaped surface, which forces the side pressure members inward, as they are caused to descend in figure 1, or to move in this exhibit A-1, to the left.

The next patent, 1,068,843, to Bayard shows tackers, 8, to which the wipers beneath them are attached, so that the wipers and tackers move together. And then at the front of the group of tackers, a tacker operated by hand for the driving of a particular tack to which to attach the binding wire that is driven by means of a handle, 34. But this tacker is attached to the toe wipers, 16. This patent has been introduced to show the direct connection of the tacker units and wiper plate especially for the main operation, and also this auxiliary end driving operation. The figure of defendant's exhibit

B-1, referring to Bayard 1,068,843, shows the hold-down in blue, and shows, also, the main wiper plate, but the tackers have been overlooked on the front of this drawing. The specifications on page 1, line 95 state,—"It is contemplated that the machine shall be organized to come to rest with the side clamps closed against the sides of the shoe and the automatically actuated in-swinging tack carrying arms 8 at the sides of the machine in their tack inserting positions over the shoe." And then, on the next page, on page 2, line 32, the specifications say,—"The lasting plate is carried automatically by its carrying arm 8 transversely of the shoe into approximate lasting position over the shoe bottom." That is, the carrying arm, 8, stops the tacking arm, or tacking device, and also the lasting plate.

The next patent offered, Your Honor, is the McFeely patent, 1,129,881. I will refer to figure 1 on this defendant's exhibit C-1. In figure 1, on this patent, there is shown the tackers in brown. Indicated in green, but also later shown to you in more detail on one of the later figures, are the adjusting springs which control the motion of the tackers and wipers attached at the bight, and attached at the ends of the band. There's also a small green mark on the cam block, which indicates the cam roller moving the wipers. You will also see, colored red, and labelled at the center, 690, the method of adjusting the support at the back, which fit just as in the Model A,—that same little tacker was there, the same as you have on exhibit 8-A. Now, in yellow, the numbers 46, 44, 43, 47, 42 and 41, are the parts of the apparatus which hold the jack into the band, and also in co-operation with the spring, 3, lift the jack upward against the hold-down.

We next come to defendant's exhibit D-1, which is figure 2, in which much more detail is given.

Q79 Doctor, I suggest at this point, if you will indulge me, that if you take the folded charts from the other proof that I handed up this morning, you can lay those out in front of you because they give a comparison between the McFeely patents, first and second? A. Starting now, with the comparative question, Your Honor, you will notice in this patent pivoted at 63, a bell crank lever, which presses against the track which is numbered, 64. The end of that bell crank lever, at the left, meshes with a gear wheel, on the shaft of which is a small pinion, that drives the purple part, marked 61. On the lower part of that reciprocating member, is the

bell crank lever, 46, which controls the upward motion of the jack, as well as the inward motion. Now, this co-operation is exactly the same, in the patent in suit. There is this lever,—there is the roller,—there is the pair of gears, and there is the purple member, 61. (Indicating) However, there is no spring in this member to distribute the yielding pressure, and we will see that is cared for in another way. There is a spring shown, which merely keeps the member against the sector and pinion in a definite way. This purple member has attached to it the equalizer, 60, just as in the patent in suit. The number of the one in the patent in suit, is 134. We have here 134 on the patent in suit, and here we have a number 121, which is the same as the pin on this other arm. It is pinioned at about the same place, and it is geared to a member marked 130. Then behind 130, you will notice the small spring, 132, of the patent in suit, takes the place of this larger spring, in length, for the same purpose. Now, the bar, 134, is the same as the bar 60, and then this little bell crank lever, 180, on the patent in suit, takes the place of the bell crank lever, 46. There is some difference in that spring. The spring, as I called it to your attention this morning, was omitted in this patent,—was omitted in the other,—but the bell crank lever is there, the double racked surface block is there, and so we could go on. But I think it might be advisable to follow out the comparative members, rather than to finish this discussion.

THE COURT: You would like to continue straight on through?

A. Yes, I think it might be advisable, if Your Honor please. If you would look at defendant's exhibit F-1;—

THE COURT: It is going to be a hard job; there are no separate exhibit numbers on these, you see.

A. Taking figure 18, Your Honor, we have in that figure,—this is on the McFeely patent 1,129,881, or defendant's exhibit H-1, we have the equalizer bar, 60.

THE COURT: Now, can you refer to the other patents, too?

A. Yes, figure 4, take the exhibit H-1, figure 18, of McFeely 1,129,881, and defendant's exhibit I, figure 4 of the McFeely patent, 1,558,737, and we have in each case an equalizer. In the patent in suit, the equalizer is 134; in the early McFeely patent, 1,129,881, it is number 60. If we come down to the side members, 136 of the patent in suit, corresponds to 59, in the early McFeely. If we come to the bell crank lever, 86 in the

patent in suit, corresponds to 54, in the early McFeely. If we come to the end pressure members, 694, on the early McFeely, 1,129,881 corresponds to the end clamps, 92, in the patent in suit.

I would now call the attention of the Court to the fact that in McFeely 1,129,881, the pinion, 61, of figure 18, exhibit H-1, is directly connected to this bar, and there is no yielding means as in the McFeely patent in suit, in which the pinion 128, drives a bar, which is connected to the equalizer, through a spring. This necessitated Mr. McFeely in his earlier patent, adding yielding means, as by the spring, 695, in this figure, to care for the pressure which he desired to produce on the side of his last, when in a lasting position. There is a slight spring, as was said this morning, in figure 4, of the defendant's exhibit I, which is yielding until the parts come in contact, and to protect the machine, the upper stroke is used. While on this figure 18, you will note at the back an adjustable stop, 692, which is moved by the ratchet wheel, 691, just as in the patent in suit.

Now, in this particular figure, 18, Your Honor, there is no band down around the heel, although in figure 19 of the patent, defendant's exhibit I-1, there is a band which connects by a lever. Now, Mr. McFeely in this patent, makes a very clear statement about his heel band.

At this point a short recess was taken, after which the witness, Arthur M. Green, Jr., resumed the witness stand and testified further as follows:

A. (Continued) Your Honor, I was looking for the statement on page 4 of the McFeely patent 1,129,881. Perhaps, it is not very important, but beginning at line 64, he says,—"Any other mechanism suitable for clamping the heel portion of the upper materials to the last may be used instead of that above described," that is, everything. Those three descriptions of the band, supported by an elastic pawl, or cord, are shown in figure 19, the method shown in figure 18, and the method shown in figure 9. Now, compare these still further with the patent in suit. Each one of them has the hold-down. The hold-down on the McFeely patent is 100, marked in blue on exhibit I, and F-1, and in the patent in suit, it is marked, 200, I believe. Now, in the McFeely patent 1,129,881, as shown in the defendant's exhibit I-1, the defendant's exhibit H-1, and also the defendant's exhibit F-1, the member 691-692,

is called the back stop. Then, adjustable by the rigid 691, you will note that the elastic spring pulling on the cords, support the bands, that should the last be removed the bands will follow out, lifting the back stop. If, however, the back stop be adjustable differently, it will position the end pressure members, relative to the back of the last, just as they are set in the patent in suit. The support by being moved forward or back, determines the point in the length of the shoe at which the side pressure members come in the early McFeely 1,129,881, and the same thing happens through this back stop. But, this back stop in the early McFeely, 1,129,881, doesn't have any upwipe to support, and therefore, there is no need for a definite support at the back, as called for in the patent. The adjustment, however, called for and mentioned in the McFeely, is identical with the adjustment of the early McFeely patent, 1,129,881.

In this figure 19 of the McFeely patent, defendant's exhibit I-1, I would like to call the attention of the Court to the end pressure members and adjacent to them, members which have pressure outward, or it may be said, adjacent to the bight, because they are nearer than the outer parts, and then, finally at the back, we find this back stop. It has no function, except that of forcing the last into a particular position. And, if the removal of the clip on the patent in suit, makes any patent come under that, because it is a back stop and not a support for the downward vertical movement,—then this McFeely patent 1,129,881, certainly has that element here. That is, the back stop positions the last, relative to the side pressure members.

Now, in this figure 19, again, it has been said that the equalizer, 60 has no yielding means behind it. It must have a yielding means, otherwise the machine would be broken. The side members, adjacent to the bight, also have spring members which allow it to yield, and the back stop may be adjusted as in the patent in suit, by the ratchet working on 691.

We have now traced through the purple part, which is operated in each of the McFeely patents by a face cam on the cam wheel, and in each of these patents that same cam operates the hold-up and hold-back.

We will now take up the movement of the wipers and tackers. We will refer to figure 2, in the patent in suit, which is defendant's exhibit G, and figure 2 of the McFeely patent 1,129,881, defendant's exhibit D-1. In each of these, Your Honor, the cam roller, which is

76, in 1,129,881, is the same as the gear roller, 226 in the patent in suit. In each of these a sliding member is moved by that cam roller. The cam roller in the McFeely patent 1,129,881, operates both the wipers and tackers. I see before me a large drawing, which I might refer to.

Q80 I would prefer not to refer to that; I think it is not yet offered in evidence, and I want to follow out this system? A. Well then, referring to figure 13, which I have here, defendant's exhibit G-1, and right beside it, is figure 3 of 1,558,737, defendant's exhibit F-1. Now, in the McFeely 1,129,881, the roller, 76 moves the bar, 78, and with it the side bars, containing the racks. Those side bars in the McFeely patent are numbered 92 or 91; they are half opened on the view we are looking at. There they are, the bar colored green and having racks at the ends. The motion is then transmitted through the bell crank levers to the small pinions, which operate to move the lower parts inwardly, the 95 member or 93 inwardly, at the same time that the central member, 120 is forced downward. Your Honor will see, painted green, or marked green, the end of the plate, which has on it a member, 71 a curved member which runs over to the side member, 70. So that then the wiper, the upper wiper, 72 is forced downward, the link, 71 moves the member 70 downward, and also because they are on a slotted, dove-tailed arrangement, they can move downward freely over the part into their support. At the same time that they move downward, however, through this pinion to which I have referred, they are forced inward.

Now the quarter or corner tackers, which are numbered 96, are forced inward by the spring, 98 just as in the patent in suit, and that spring forces them against the back of the wiper, 71 just as in the patent in suit. But, in this patent, however, there is no separate retractor motion of this particular member, and so there is no limit, of course. But, on the members marked 72 at the center, and the member marked 70 at the side, there is a member marked 83 at the end of which is an inclined surface, meeting another member marked 84. That member, 84 has within it a circular, arcuate groove, 842 in which there is a pin, 850 which pin is connected to the wiper, 72 and, in a similar way, at the end of the wipers on the side, a corresponding arrangement there, of a pin marked at that place, 840, in the same way that the other one is attached to the wiper. And,

if we allow the member, 84 to turn on the pin, which is mounted there, you can easily see that the pin, 84 as it is drawn on backward to the wiper, is retracted a slight distance, so that the tacker can drive, without interference of the wiper.

Now, the member marked 87, is a spring which comes down on the inclined surface, and there puts friction on this member, 84 which, by the way, is pinned by the cross hatched pin to the base of the tacker. We can change the amount of friction between those two inclined surfaces and so regulate the amount of motion or retraction of the wiper to the tacker. I would like to read what Mr. McFeely says about that relation. On page 5, or rather starting on page 4, at line 126, speaking about the wipers, he says: "These devices receive their movements from the cam block, 65 before mentioned and shown in Fig. 2, which has a cam path 75 in which stands a roll 76 on a slide 78 that is connected by an equalizer 80 with bars 82, see Fig. 13, and also carries the rigid forwardly projecting arm 83. This arm 83 has a yielding connection with the wiper plate 72 provided by the following arrangement: The arm 83 has a beveled end face which abuts against a similar face on a displaceable member 84 that is pivoted to a slide 85 and by which the wiper 72 is actuated through the stud 840 and sub-slide 850. The member 84 has a beveled upper face at 86 upon which rests a beveled plunger 87 carried in the slide 85 and pressed upon by a heavy spring 88, see Figs. 2 and 13. The spring plunger maintains the members 83, 84 normally in the relation shown in Fig. 13, but permits the member 84 to turn and the movement of the wiper 72 to cease when resistance to such movement overbalances the tension of the spring 88. Normally however the wiper will overcome any resistance offered by the work and complete its stroke into predetermined position over the last bottom to wipe the upper into position to be tacked." Then follows the description of the tacking. Oh! I must continue. "The tacking is effected by mechanisms, to be more fully described and each of which includes a tack block 120 carried by the slide 85 and having a depending lip or stop 122 to meet the side of the last, or the heel band that embraces the last, and position the tack blocks for tacks to be inserted at a definite distance from the edge of the shoe bottom. When this stop 122 arrests the movement of the slide 85 the beveled faces of members 83, 84 wedge sidewise

against the influence of spring 88. The member 84 has a cam slot 842 into which the stud 840 of the sub-slide or wiper slide 850 projects and when member 84 is wedged sidewise as described the cam slot 842 acts on the stud 840 to retract the wiper slide and wiper slightly with relation to the shoe and with relation to the tack block so as to permit the tacks to be driven into a portion of the upper which has been wiped in and pressed down by the wipers to smooth and prepare it for the reception of the tacks. The machine thus automatically follows in this respect the well known and advantageous procedure of the operator of manually actuated bed lasting machines who 'backs up' his wipers preparatory to tacking the heel seat. The members 83, 84 have co-operating lugs 89 by which member 84 is returned to its initial position when member 83 is retracted". Now, on page 5, still, beginning at line 82, he says,—"The construction and arrangement of the parts just described provides that movement will be transmitted from the cam path 75 to the wiper plate 72 and through that plate and the links 71 to the wiper plates 70 to advance the wipers. This carries the wiper 72 over the heel seat of the shoe and moves the wipers 70 endwise in blocks 950 and the links forwardly with relation to the plungers 96. Simultaneously with this forward movement motion is transmitted through the angle levers 99 and the described, independently yielding connections to close the side wipers and the corner wipers or links 71 inwardly over the heel seat, thus gathering the upper inwardly in substantially radial lines over the heel seat. The provision for effecting the forward movement and the inward movement from each side of the shoe through independently yielding connections permits the wiping or breaking down means to adapt or conform itself to the contour of each shoe and this is facilitated by the flexible connection 71 between the plates 70, 72, which act at the ends and back of the heel seat. The independently yielding connections also facilitate the adaptation of the wipers to the shape and position of right and left shoes which differ greatly when made on crooked lasts. This however, is largely provided for by arranging the jack so that the shoe can swing laterally about the axis of the spindle 10 to center both right and left shoes in the lasting devices."

Your Honor, there is just one more thing to bring out in this case, which is shown on the isometric draw-

ing of the patent in exhibit E-1, of the defendant's figure 8. In this figure, in figure 8, you will see attached under the jack block, at the end.—and you see the same thing shown at the middle of the jack block in another figure,—from the end of the jack block, there is a hanging part on this rod, which comes underneath the wiper plate, comes against the shoe, or the bands, rather, controlling the exact distance that the tacks must be driven from that band. Now, in this arrangement, we have that member and spring 88, 87, 86 and associated parts, and this hanging depression from the tacker, Your Honor, can be predeterminately set by the shoe itself, and by the tightness of this spring, to move the wiper and the tackers to the predetermined relation desired for the tacking and wiping. And, in the patent in suit, as we said this morning, we have the same roller, now numbered 226. Now, in this the bar number 224 and in this, the tacker 234 is moved by the spring. It is moved by that spring until 224 reaches the pin attached to the frame of the machine; then the tacker can go no further. Here, the McFeely is so arranged, as it is in this patent in suit, to advance the wiper still further; and to move relatively to each other, as you see. The same thing is done on the side moving tacker, which is also forced against the side of the wiper, until it is stopped from the motion of this part.

Now, the patent definitely says what those things are for. I am now reading from the patent in suit; I am on page 6, beginning at line 91,—"The base 232,"—which is the base of the tacker,—"is formed with an elongated slot 242 therein (Figs. 3 and 7)"—there's the slot, (indicating)—"and a pin 244 depending from a bracket arm 246 (Figs. 2 and 3) rigidly secured to the machine frame; co-operates with this slot to limit the cam actuated forward movement of the unit, 234,"—that's the tacker unit, the base of it is 232,—"bodily with the block 224, determinately to position the tacks beyond the inner edges of the wipers when the wipers are partially withdrawn rearwardly for the tack driving operation."

Now, it states in here that the spring also cares for any obstruction; that's true. It will, if there is anything in front of the tacker, it will stop it, but the tacker can't advance beyond the limit set by the pin, 244, and that is not the end of the motion of the wipers. I am sorry to go over it again, but it is very important that we see it. This says that the wipers are partially with-

drawn rearwardly. This in on page 8, at line 21: "Accordingly, the base plates 286 have rods 296 extending therefrom in the direction of their length out and through smooth bores in the sides of the machine frame. The ends of these rods are threaded and receive stop nuts 298 which engage the frame and adjustably limit the inward movement of the bases 286 and their tack holding and driving units. By adjusting the stop nuts 298 which, as seen in Figs. 1 and 3, are located on the outer sides of the frame, the tacks in said units may be positioned less than the maximum distance inwardly of the wiper edges predetermined by the initial adjustment of the stop plates 294. It will also be evident that the stop nuts prevent the corner tackers from moving too far inwardly, where they might engage the hold-down, in the first two advancing movements of the wipers." That is, the wiper of the patent in suit goes in once the full amount of the relative motion between the back unit at the center, called the bight, and the two corners. There is very little translational variation between the two tackers, but there is a rotational movement. Now, the second movement is the same. On the third movement, there is only a partial turn to keep the tackers ahead of the wipers.

Now, in this other McFeely patent, 1,129,881, there are only two movements to wiping, but in those the parts co-operate together with the side of the band and tightness of the screw, to predetermine the position to which you want to wipe and tack. Coming next to the figure 2 of the McFeely patent, 1,129,881, defendant's exhibit D-1, and this corresponding sheet of the patent in suit, we see in each of these figures, defendant's exhibit D-1, of 1,129,881, McFeely, and defendant's exhibit G of McFeely 1,558,737, a hold-down, which is numbered 200, in the patent in suit, and 102 in the patent 1,129,881. These are each driven by a rack and pinion, finally meshed to another pinion over a thin cam, which is marked 110 in 1,129,881, and 174, in patent 1,558,737. Now, the purpose of the hold-down in each of these patents is to add one particular part to the cycle, to allow the last and upper to rise, between the first and second wipes, above that support at which the tacks are driven. The McFeely patent, 1,129,881, describes this exactly in the way in which it is described for the rise between the first and second wipes of the patent in suit. Of course, Your Honor, there is no third wipe in 1,129,881. You know I read the description of that action, which refers to this lifting between the wipes.

Testimony of Arthur M. Greene, Jr. (Resumed).

THE COURT: Is that in the original patent?

A. This is the original patent, 1,129,881. This is on page 6, beginning at line 15. "The block 102,"—that's the hold-down,—"is guided for vertical movement in the machine head and has rack teeth engaged by a pinion 105, coupled by a rack rod 107 to a lever 108 which is fulcrumed at its upper end and is held by a spring, 109, acting on the rack rod, against a cam face 110 formed on the front end of the cam block 65. This cam face is formed with relation to the cam track 75,"—that cam track 75, Your Honor, is the one at the middle, that's the wiping cam track right in the middle of the cam 75,—"for the bottom rest to be raised between the first and the second advance of the wipers so that the shoe may come up to the level of the wipers before their second advance, whereby the upper is caused to be firmly wiped or ironed down upon the last bottom to form a firm, smoothly lasted heel seat. The lifting of the shoe is effected by the strong spring 45 located in the jack lifting mechanism which is put under tension when the jack is locked up."

That is, the wording is almost the same as in the patent in suit, and it does the same thing. You first have the hold-down moved to put the bottom last, that is, the last bottom below the line of the wipers for the break-down, and then, when you retract, you raise it about a thirty-second of an inch, as you see in Model A, and then wipe it over. That is, in this early patent of 1915, the same principle as in the McFeely patent in suit is disclosed,—there is no difference whatsoever.

Then we finally come to the tacking members, which I have described, as to their relative motion, and although the pin is somewhat different, the principle behind it is the same, that is, you move your wipers in, and that, by some relative motion, sets the small pin, 850, and you pull your wipers back to get out of the road of the tacks. In each of those figures, we have the brown tackers. In the McFeely 1,129,881, these are represented by 125 pushed down by a plate, 126 when the cam 132 is pulled out of the road.

Now, when we come to the patent in suit, we have the same kind of a plate at the top cut off the same way and they hang in the same way, the same kind of a cam on the shaft, which, when it is pulled over, has a sudden drop by which to bring this down by a small fraction of the rotation. In the patent, 1,129,881, there is no upwipe, and there is no preliminary point, but the other elements and particularly those which refer to all of the

claims in suit, if a narrow construction is taken of the claims of the patent in suit, then all of those claims are met by the prior McFeely patent. In fact, it might be that the element referring to the change of the hold-down might possibly come under the inclined shaft between member 100 at the bottom of the hold-down, and the member 102, that is, that solution would mean, that if you should move them, you would change the position at which it started to go down. It would be, however, the full movement of the cam, but it does render possible a change in the starting position.

MR. TOULMIN: Your Honor, I have got to a convenient afternoon point for adjournment.

THE COURT: All right; we will adjourn until 9:00 o'clock tomorrow morning and run until 12:00.

At this point, an adjournment was taken until 9:00 o'clock in the morning of the following day.

MORNING SESSION,

SATURDAY, JANUARY 21, 1939.

Court met pursuant to adjournment, counsel being present on behalf of both parties.

Thereupon,

Dr. Arthur M. Greene

resumed the stand and testified further, as follows:

By Mr. Toulmin:

Q81 Last night, Your Honor, we were on the comparison of the two McFeely patents, and we have a brief conclusion. Will you proceed, Dr. Greene, now to complete your comparison between the first McFeely patent and the second McFeely patent, on which you were engaged last night? A. In order to do this I would like to refer to a large—

MR. TOULMIN: Just a minute, Doctor. I will offer these in evidence, so we will have the record complete.

Thereupon counsel for defendant offered in evidence four enlarged colored photostats, and the same are made part of this record, marked as follows:

Defendant's Exhibit T-1, Figure 1, McFeely patent No. 1,129,881.

Defendant's Exhibit U-1, Figure 2, McFeely patent No. 1,129,881.

Testimony of Arthur M. Greene, Jr. (Resumed).

Defendant's Exhibit V-1, Figure 13, McFeely patent No. 1,129,881.

Defendant's Exhibit W-1, Figure 19, McFeely patent No. 1,129,881.

By Mr. Toulmin:

Q82 I have placed on the easel on the right-hand side, Dr. Greene, Defendant's Exhibit V-1, and on the left-hand side Plaintiff's Exhibit 16, which is an enlarged photostat of Figure 12, Figure 3 modified, and Figure 10 of the patent in suit. A. If it please the court, I would like to refer to the two exhibits Defendant's Exhibit V-1 and Plaintiff's Exhibit 16 to show the similarity and equivalence of the two devices, one of 1915 and applied for in 1909, the other of 1925 and filed in 1916, with particular reference to the co-operative movement of the tackers and wipers.

In both cases you have a cam roller 76 in 1,129,881 patent and 226 in the patent 1,558,737. These are attached to members which slide and are connected through parts to the wipers 70, 71 and 72 of the 1,129,881 patent, and the wipers for which the number is not given in this figure (indicating Exhibit 16) but the word "wipers" is added leading to those points. I would like to insert the number of that wiper for future reference of the court. The wipers are numbered 254 in Figure 5. These are mounted on a track in the form of an arc of a circle in the case of the patent 1,558,737. Now in the earlier McFeely patent 1,129,881 the moving member forces an equalizer and at the same time a member 83 for the wiper at the bight of the band. The side members connected to the equalizer through gears drive the wipers at the ends of the band, or at the outer ends of the band I had better call it. Between the outer end wipers and the central or bight wiper there is a connection 71 which is pivoted to each of these and as they move that band closes in to wipe the part of the last adjacent to the bight. In this one (indicating Exhibit 16) the end of the wipers is pulled in as it moves forward by the gear to which I have just referred.

MR. LYMAN: You said "in this one."

A. Referring to Exhibit 16, in the case of the second McFeely patent. Now in this first McFeely patent there is a cooperating member attached to the tackers which is shown, Your Honor, in the Exhibit E-1, if I might find it for you.

THE COURT: If you will give me the sheet number I can find it.

Testimony of Arthur M. Greene, Jr. (Resumed).

A. Well, it is Figure 8 of the patent. There is a nice large figure here which I should like to give you, with your permission (handing enlargement to the court), and I would like to compare that with Defendant's Exhibit S-1, which has been prepared from the patent drawings of patent 1,558,737. The part to which I refer Your Honor as the cooperating part of the early McFeely is the lip 122.

MR. LYMAN: I would like to see this, too.

A. You have a sample of it, but I would be very glad to let you have it.

MR. LYMAN: Are you referring to Exhibit S-1?

A. I am now referring to the Defendant's Exhibit E-1, with special reference to part 122, which is a suspended part rigidly connected to the tacker and forms a guide member which positions the tacker properly over the last to drive the tacks at a definite distance in from the edge,—this part cooperates with the last through the heel band—because that is not visible in Figure 12 of the patent, not in this reproduction (indicating), which is an exact reproduction.

Q83 Which exhibit are you referring to, Doctor? A. I am pointing to 1,129,881, Exhibit E-1 of the defendant. And, as I said yesterday, the pin 850 working in the cam groove 842 of the patent 1,129,881, cooperating with the beveled base of the member 86 forced down by a spring which may be adjusted, and because of these guide members 122, the motion transmitted from the roller 76 through these cooperating parts on the tacker and wiper at the bight and the tacker and wiper at the open end of the band, produces a movement of tackers and wipers which can be predetermined, which is predetermined, in the words of Mr. McFeely and, as you see on this drawing, to make the tackers and wipers conform, as he says in the patent, to a right or a left or any peculiar form which he may have.

Coming to Exhibit 16 of the Plaintiff, which is for the patent in suit, and referring also to the Defendant's Exhibit S-1, which is an isometric drawing, we find on this drawing the member 226, the roller, attached to the slide, which is painted blue in this figure and represented by 224. Then you will notice, Your Honor, this member 86 which we referred yesterday, 244, which the patent says is firmly secured to the bed of the machine. He does not say it is rigid with the machine but secured to it; and were it not for the fact that it was secured and not rigid or rigidly secured, you could not get the adjustment which you need in here for an extra

motion or a further motion of the tacker. Then also you find in here the spring to which we referred yesterday, and the stop pin which regulates the amount of motion, together with this 244, which the member 224 and the member 232 can have together without relative motion, but then if the motion of 224 is greater than that conrolled by the stop, the slide and wiper go in further. I call your attention also to this limiting member 296 with the nose 298 on Exhibit 16. The spring 290 forces the wiper inward as far as this adjustment will permit. The wipers at the end of the band are controlled through the member 276 and its associated parts, and this may be varied but, as attention was drawn yesterday to the fact, as inward motion occurs there is rotation of the wiper relative to the band. These two parts, 244 and 298, have nothing to do with the power means of this device. They are absolutely separate and with or without them the power means which is causing the motion would act.

The drawing Defendant's Exhibit S-1 shows the tackers of the two patents, E-1 of the McFeely 1,129,881, and S-1 of the later McFeely, 1,558,737, and the distribution of parts are the equivalent in those two figures.

I would now like to refer to certain other drawings which again show this similarity. (Placing two other charts on easels): If the court please, I would like to refer to Defendant's Exhibit W-1, which is a reproduction, enlarged, of Figure 19 of the McFeely patent 1,129,881, and Plaintiff's Exhibit 17, which is an enlargement of Figure 4 of the patent with certain details added to explain the drawing in better form. In the Exhibit 17 we have the part 92, which is marked as "Manual Adjustment for Heel Band", coming through to the center, the shaft 86 coming through to the center, which is a pinion that moves the central part or adjusting member forward or backward. In the 1,129,881 patent, Defendant's Exhibit W-1, marked in red in the same way, is the projecting member which in this figure is made longer, and by reference to Figure 18 of this patent, the purpose of it is to permit the introduction of a shaft 690 moved by a similar device to this. It is not shown in this figure, of course (indicating Exhibit W-1). The part, however, is long and is similar to that shown in this previous figure, so that the adjustment of the back stop, as McFeely calls it, which is not connected to the band but backs it up, can be adjusted. And, as interpreted by the plaintiff, this is the same as the

motion there (indicating Exhibit 17), in that it controls the position of the back of the band relative to the side supports and pressers. It is not a support, however, and in this McFeely there is no need for such a support in that there was no upwiping. We have the yellow bell crank levers driven by the racks on the parts 59, and we have the equalizers 60 in the Exhibit W-1, corresponding to 134 in the Exhibit 17 of the plaintiff. There is a band in the McFeely, in the Exhibit W-1. There must be springs on these clamping members, inasmuch as the equalizing bar is driven directly from the sector arm connected with the back cam face of this McFeely patent 1,129,881. There is the hold-down shown in this figure of W-1—I beg your pardon, the support for the hold-down, 100, and that of the McFeely patent is attached to the hold-down. In this figure the part shown here—I am now referring to Exhibit 18—the part marked blue is the support for the toe and the blue part in the center is the upper end of the jack. In the patent in suit, as shown by Plaintiff's Exhibit 17, we have a yielding means at the top driving the equalizer as it is pulled up and yielding if the spring at 100 is compressed its full amount and forces against its cylinder within which it moves. As previously said a number of times, and as you have said, Your Honor, a yielding means must be somewhere in this device. And in the later McFeely, as shown in Exhibit 17 of the plaintiff, springs are used on the driving member between the source of power and the machine. There is a spring here, it is in evidence, which does yield, may yield, but if tightened up sufficiently and when it is compressed this is an unyielding member back to this point. I call attention to the great similarity between the early McFeely 1,129,881 and the later McFeely 1,558,737 regarding the motion and the parts used to force the heel band against the last.

Now I would like to call your attention, Your Honor, to the enlargement of the cooperating parts (placing other charts on easels), which are very nicely shown on the two figures presented to the court, Defendant's Exhibit U-1 of the McFeely patent 1,129,881, Figure 2, and the same numbered figure of the plaintiff in his Exhibit 15 of the McFeely patent 1,558,737. In each of these there is the cam wheel driven from the shaft and delivering power to this machine. In the McFeely patent 1,129,881 the only cams which concern us in the claims in suit are the back face cam 64, the central cam

—by the way, the 64 moves the band and also the jack —the central cam paths, 75 of the early McFeely and 228 of the later McFeely 1,558,737, which controls the wipers and tackers through cooperative means. There is no direct connection between tackers and wipers; there is cooperative means, there is relative movement, and each of them will be cooperating means. Then we have another face with the cam 110 which moves the hold-down through a pair of racks and pinions, the hold-down being 102. And in Exhibit 15, the second McFeely, we have a cam path in the center 174 which moves through two racks and pinions the hold-down, which is number 200 and marked "Hold Down" in this enlargement. The hold-back is shown in Figure 2 of the Exhibit 15 of McFeely 1,558,737. And referring just for a moment to Defendant's Exhibit T-1 of 1,129,881 patent, we see the same hold-back attached to the post of the machine. This hold-back in each case is operated from the gear on the lower part of the moving member which forces the band around the last. That member is 130, I take it, on this plaintiff's Exhibit 15, and it is 61 on the Defendant's Exhibit U-1. The two are identical.

We next come to the tacking members, which are brown in each case, and as shown by the Defendant's Exhibits E-1 and S-1, the great similarity and equivalence of that construction is shown. Each of them is driven by a cam on the same shaft, cam 318 of the Plaintiff's Exhibit 15, and cam 132 of the Defendant's Exhibit U-1.

Lastly, I would like to call attention to the general views as shown by Figures 1 of these patents, using the Plaintiff's Exhibit 13, an enlargement of Figure 1 of the McFeely patent 1,558,737, and the Defendant's Exhibit T-1, a photostat reproduction but colored of the early McFeely patent 1,129,881, and I call attention to the cam wheel at the center in each of these, the tacking arrangement with the same driving method, the tool post which, by means of bars 690, is raised by the cam which is alongside; and I spoke about that in the other figure. We have in this one the rod 43 which does the same lifting, and then, as I called attention of the court a moment ago, we have the hold-back, which is operated from this same cam. This is not shown in Figure 1 of the McFeely patent 1,558,737 because that part is within the housing, and the part which you see outside containing the lever 170 is a separate and

additional device on this patent, which has the function of initially pulling the lasting post back against—the post backward and the last against the band. There is nothing like that in the early McFeely patent, and the function of this member was to retract the heel of the last with its upper against the band so that upwiping could start as soon as that got into place. That is, as McFeely says in his description of the patent 1,558,737, the first thing is to initiate the backward movement by this extra cam track, then it begins to close by means of the back cam track, raise and push downward with the hold-down, in order to get upwiping.

Q84 Doctor Greene, have you examined the Model A machine of the plaintiff, known in this case as Exhibit 4, located in the anteroom? A. Yes, sir.

Q85 What do you find as to that machine, as to the inclusion in it of anything of this first McFeely patent 1,129,881? A. The embodiment is identical as to function and operation with the exception of the upwiping and the method of limiting the motion of the hold-down, which is common in the art, as I will show.

XQ86 Now, Dr. Greene, will you look at this chart and tell me what it is? Before handing it to you I will have it marked.

The chart referred to was marked **Defendant's Exhibit X-1** and is made part of this record.

A. The Exhibit X-1 is entitled "Cam Positions of McFeely, Patent No. 1,558,737." It is based upon the Figure 10 of the patent shown on Sheet 3 and on the patent specification starting at page 10 and going through to page 12. As Your Honor will recall, in the discussion of Exhibit 16 (placing chart before the court) of the plaintiff, Mr. McNulty called attention to Figure 10 and its motion as indicated by the roller, and stated that it would be difficult to see just how this fitted—correctly stated it would be difficult to see from this just how the different parts operated because of the distribution around the circle of the cam. All this drawing has been prepared for is to aid the court in seeing how these different parts advance. The cam tracks in all of the figures from 1 to 10 are substantially identical—they were intended to be—and the thing which was moved was the relative positions of the rollers, cam rollers, and crosses have been put on the rollers which are going into action and are described underneath the different figures. Down at the left corner the designations

of the various parts are given. The number 116, for instance, as seen on any one of these figures, will be the complete cam wheel; 118 is the cam surface for controlling the heel band clamping pressure and hack support and held-in pressure, and so on. And as we go through the description from page 10 to page 12, the various things which are stated there have been copied off to aid the court in seeing the cooperation of these various members.

Q87 Now, Dr. Greene, will you continue with the rest of the prior art, so you can conclude on that subject, for a moment? A. The next patent to which I wish to direct the court's attention is that to Cavanagh, No. 1,130,142, in Exhibit J-1 of the defendant. In this exhibit, which is an enlargement of Figure 1 of the patent, we find a clamping means, colored orange, forced against the shoe last and upper by the members, in purple, the cross bar being marked 60, moved through the foot treadle 70 at the bottom of the picture through a chain. This enables the operator to clamp the last and upper, which is mounted on the pin 90 and forced inward by the treadle 80 which is operated by heel and toe of the foot, and then the handle 48 is pulled out to throw the clutch 46 into such a position that the crank face 42 rotates. This rotation of this crank causes the connecting rod 40 to move. It then moves the rod 20, which moves the cross rod 22 and forces the wiper inwardly as many times as the operator desires. The patent specifies that by moving the pin, which is called the crank pin, on the crank disk 42 nearer to or farther from the center, you position these wipers in a predetermined relation to the last. That is, if you are dealing with a last requiring a small amount of wipe, the crank pin is moved nearer the center; if you want a larger amount of wipe, you predeterminately arrange it by moving it farther from the center.

In Figure 2 of the patent in your set there, Your Honor, which is not given in the exhibits but in the collection of patents, in Figure 2 you will note the operation of the heel band. It is held down by the pressure exerted on the member 62 which is attached by the chain to the foot treadle. From there on, however, you have the unyielding parts 60, 75, down to the member 55, which presses in at the side. You also have an adjustable means at 54 to permit the support to be moved outward if desired. And in Figures 3 and 4 of that same sheet you note that the pressure is above the lower edge of the last. In this we have wipers with predetermined

adjustment as described, means to move the wipers, we have the U-shaped figure and the jack, we have a movable adjustable member, we have the heel band supported on opposite sides and pressure members on those sides, we have means to operate the pressure members and the end wipers.

Q88 Is this a power operated machine or hand operated machine, Dr. Greene? A. The wiping is power operated.

Q89 Is it an automatic machine in the sense of wipers in a complete power cycle, or do you have to have a hand intervention? A. You have to have a hand intervention, as shown in the figure, which shows the clutch moved by the handle.

Q90 And after you have once started do you go through a cycle of operations? A. Until stopped.

Q91 Yes, until stopped. A. I would like to call attention again to this enlarged figure which shows at 16 the handle with a screw 15, which is used to adjust this for inclination, as we saw in the shoe factory visited. The lasters there had adjustments for practically every position that you might encounter in a shoe last, up and down, crosswise, forward and aft, and this member 16 is the handle for properly inclining the wipers in the cross direction.

The next patent to which I would like to refer is that to Brothers, No. 1,135,945, as shown in the Defendant's Exhibit L-1, which has been prepared to show more clearly the cooperation of the wipers, which are driven in this case by an operating lever through an equalizing bar, but then at the corners of the wiper are predetermined adjusting means for the wipers 83. By opening or closing the gap between those two projecting ears the initial position of the wipers may be changed—can be changed. There is a hold-down shown in this but the important feature to which we wish to call the attention of the court is the adjustable wiper.

The next patent is that to Brock, No. 1,188,616, who is the assignor to the United Shoe Machinery Company of Paterson, New Jersey, a corporation of New Jersey, and the Exhibit M-1 of the defendant is an enlarged view of Figures 9 and 10 of this patent. The band, which is of an orange color, is shown, and is made of a particularly resilient material, according to the patent. It is supported by clips at the ends of the band, and there is a support at the bight of the band which is adjustable in two directions. By the hand wheel 94

it can be adjusted perpendicular to the normal axis of the last, and through the member 96 it can be advanced. At the back of the band, and shown in this figure at the bottom, is another clip. It is not very clear in this picture, but in Figure 9, to one side, there is shown the depression made at the bight of the band to receive the end of that clip. And we will see by reference in just one moment to the other figures just how this is supported. There is a chain band 86, colored red, which is fixedly connected at the ends to the purple members which, we will see in a moment, are unyielding until you get to the spring member which is in the system between the cam and the band. If the court will kindly look at Sheet 2 of this patent, and particularly Figures 3, 4, 5 and 6, it will be noted that by means of the screw 62 the ends of the wipers may be forced inward and preliminarily adjusted to give predetermined relation between the motion of that wiper and the last which is to be used for lasting. That is, here we have an adjustable wiper. In Figure 4 we note the side supports for the clamp band. On turning to Figure 1, Sheet 1, we can see this adjustable arrangement at 62, near the bottom of the picture, and a similar mechanism at the top for preliminarily adjusting the wipers; we see the clamping means, which is colored purple; and in Figure 2 is to be noted the purple member which operates this clamping means and is driven by a bell crank lever at the bottom through the spring 10, which of course is required. As I said earlier in my testimony, the cooperative parts of the clamping member are not clearly indicated in this figure, and I referred to the patent to Brock, No. 1,002,818, in which we have the structure which I have described. There is no definition in the patent specification saying that this is the structure, Your Honor, but from the drawing and the parts in this figure, the springs, the adjusting screws at the ends, dotted lines, and particularly Figure 2, I am led to believe that this patent 1,188,616 has bands which are driven by chains forced inward by the device shown in 1,002,818, which is also assigned to the United Shoe Machinery Company. In this we have wipers, predetermined adjustment of them, means to move them, we have the U-shaped band, the jack, the movable adjustment at the heel, the heel-band support at the sides and at the back, the pressure members to operate the sides, manual means to adjust, means to operate the pressure members, and the wipers.

Testimony of Arthur M. Greene, Jr. (Resumed).

We next come to the patent to Merrick, as shown by the defendant's Exhibits N-1, P-1 and O-1. The intention, Your Honor, in Figures O-1 and N-1, the purpose of putting O-1 and N-1 in originally in preparing for this case, is that these illustrate very nicely and completely the method of upwiping by the use of the band.

MR. LYMAN: The exhibits are N-1—

A. —N-1, O-1 and P-1. Directing our attention to P-1, which is an isometric drawing prepared to more clearly bring out the operation of this device, we have the wipers 27, which are moved by the arms, bell crank arms 29, as the wiper is moved relative to the upstanding roller 38. The spring permits the wiper plate and wipers to move forward relative to this roller and so close in over the last. At the lower part of the picture we find the heel-band supported above the bottom with pressure members at the side operated by a plate and from a plate which moves inward. Now, Your Honor, if you will turn to Figure 2 of the patent, on Sheet 2—and these sheets are numbered from the back forward—you will note down in the lower right-hand part a little bit up from the bottom, members 40, 41, which are attached to the base 35. This base 35 carries the clamping band and the wiping members. On account of this parallel motion, as it is called, as you advance those members 40, 41 by means of the handle 47-a you cause upwiping from the bands and also an inward motion of the wipers. Now the figure right above there, Figure 2-B, shows a method of varying the length between the point 47-g and 47-e, which means that when this adjustment is made the wipers travel forward a greater amount, and so by this adjustable screw 47-c you can pull a toggle joint amount of motion, which is produced by this handle 47-a, so that you vary in a predetermined way the amount of motion which you are going to give to your wipers relative to the last. You will note in this same figure a member 103, which is on a post 104, which is called in the patent the hold-down. If you now turn to Figure 1 on the left-hand side, you will find this member 103 mounted on 104, but 104 is moved by the toggle joint 110, 112, so that if 111 pivot is moved to the right or left, the hold-down will respond in motion. If in this position it moves to the left the hold-down will be lowered. This hold-down is driven by means of the element 116, which moves backward and forward, and only moves when the clutch 120 is thrown in. Attached to that member, however, is the bar 129, on which are two stops 132, at each end. By moving

these stops you can control the amount of downward movement of the hold-down.

And while speaking of that feature of the Merrick patent I would appreciate it if the court would turn to the Plant patent, an earlier one.

THE COURT: 958,280.

A. That is the one, Sir. And referring to Figure 1 of Sheet 1 of that patent, the specification refers to the bar 172 in the center at the top as an operating member for the hold-down which runs off from 28 over to the side. This bar 172 is moved by the rod directly below it through the toe pedal 29, which has an engaging edge which fits into any one of the notches 203, so that by moving this toe pedal to one of the other notches you can vary the amount of motion of the hold-down.

The next patent is to Pym.

MR. TOULMIN: May it please the court, I desire to direct your attention to this quite important patent from our point of view, that the Pym patent was formerly one in suit here and dropped, alleged by this plaintiff to be a patent that we infringed and which we had taken by a part of the machine. I shall call Your Honor's attention later in the case, by argument, to certain rules of law in this connection.

THE COURT: This is the third patent.

MR. TOULMIN: The third patent.

A. The Pym patent, to which reference will be made in a number of the figures, is shown in an isometric form in Defendant's Exhibit Q-1, which is intended primarily to bring out the wiper action, the heel band action, and means of varying the positions of the wiper. In this Exhibit Q-1, prepared from the construction disclosed in the patent, there is a wiper carrier with a central prolonged bar which has on each side of it the wiper adjusting means similar to the means shown in the early Eaton patent, that is, the rack bar shown in the wiper adjusting means 125, 126, 129, 130 can be moved by the parts 133, 134 mentioned in this picture, or labeled in this picture "Predetermined Adjusting Means for Wipers." That is, by moving the rack bar and turning the gears shown in the picture, the pinions, it is easily seen that the teeth on the back of the cam carrier, the wiper carrier, can be moved so as to close or open the outer ends, because this unit is carried on a circular cam or projecting key. Now as the whole thing is forced forwardly in this position, in this picture it is seen that the rack, now being stationary, causes these gears to move as the whole frame is moved forwardly, and that

motion will produce an inward motion of the wipers 120 as marked in this picture. The front of the picture shows the rack which is attached to this predetermined adjusting means. The picture also shows the hold-down 72 which, as we will see in a moment, has an adjustment for varying its initial position. Then we have the orange-colored heel band with the spring controlled pressers, which are mounted on the support 79, and the figures later will show how this is moved.

Going now to the patent, Your Honor, and looking at the last one of the figures, Mr. Pym—

THE COURT: —Sheet 9?

A. Figures 14, 15, 16 and 17, I am merely calling attention to the fact that Mr. Pym here has shown his various cams in quite a similar way to that shown by the defendant, so that in his description at the end of the patent he shows how the various elements of this structure, which is a bed laster, will move.

Referring now to Figure 9 of the patent on Sheet 7, you will note there the red member 79 which is mounted on the pin, loosely mounted, since it turns, on the pin 81, which supports the bight of the band. This set of arms is driven backward and forward through cam action by the purple member 101. I do not think, Your Honor, it is necessary to go into the cams.

THE COURT: No.

A. The cams move it, as you will see. As this is moved forward the pressure is put on not only at the sides but at the bight of the band, as shown in Figure 11. That shows the part adjacent to the bight, and when the member 101 is retracted the spring 100 causes the backward movement. The picture also shows the hold-down 74. Then if we turn to Figure 6 on Sheet 5, we have the patent drawing of the parts which have been indicated in an isometric method on the Defendant's Exhibit Q-1, and since I have discussed the motion of the wiper plates and their predetermined adjustment I will not need to discuss that further here. The picture also shows, however, the hold-down, colored blue, which is mounted on a cross bar and travels on the column 64, 64 at the front of the machine.

Turning now to Figure 5 we note the support 42 of the last backed up by springs of various strengths, and then at the top we have the hold-down, which is moved through the movement of 68 at the top. On Figure 3 just preceding that we see this part 72 which is backed up by the threaded bushing 75. By moving this bushing up or down you are enabled to position the hold-

down a varying amount to suit the action of the laster when he wishes to operate the machine. Now, Your Honor, the motion of the bar 64 is controlled by a cam and this action of starting the motion at which the hold-down comes in contact with the shoe may be altered by the position of this member, although the element of claim 42 speaks of varying the motion, and this merely varies the position. The amount of motion has been clearly shown to be limited in the Merrick patent and in the Plant patent.

On Figures 12 and 13 of Sheet 8 I merely wish to show the court by these figures the method of varying the inclination of the last or of the position of the last relative the center line. You will note the screw 35, which is attached to a slide block 34, is used to position the last as desired by the laster. These figures, however, very nicely show the pin 81 which is the support for the part of the band at the bight and about which the members 79 are freely mounted, or loosely mounted, as one expression has been made.

Q92 Now, Dr. Greene, will you compare the McFeely patent in suit, No. 1,558,737, with the Hoyt patent in suit, briefly, please? A. The Hoyt patent in suit, No. 1,508,394, with reference to claims 19 and 21, deals with the heel band and its associated parts, being shown by R-1 of the Hoyt patent, and the McFeely patent—Figure 4, in the patents in the book, Your Honor.

MR. LYMAN: Which are you referring to now?

THE COURT: Defendant's Exhibit R-1.

A. In the Hoyt patent as shown in the Defendant's Exhibit R-1, a reproduction of Figure 2 of the patent. I am comparing this with Figure 4 of the McFeely patent in suit, 1,558,737. In each of these patents we find an arm, 120 in the McFeely patent and 200 in the Hoyt patent, which are driven from the cam face and deliver power and motion to the pinions 124 in McFeely and 198 in Pym. This pinion is attached to a shaft in each case, or these pinions are attached to shafts in each case and drive pinions which move members within which are springs. The spring 195 is within this slider bar 194 of the Hoyt patent and the spring which appears to be marked 128 in Figure 4 of the McFeely patent is within the slider 130. Each of these springs is connected to a bar which finally supports an equalizer, 188 of Hoyt, 134 of McFeely. Then the motion is carried through two side bars containing racks, which operate bell crank levers. At the bottom of the bell crank lever is a connection in each case running to

members pivoted on the housing of the machine. These pivots are 172 in Hoyt and 80 in McFeely. The ends of the levers, 160, 158 in Hoyt and 78, 78 in McFeely, are attached by a series of parts to the pressure members which act against the edge of the band. In the McFeely patent there is a connection between this turning lever 78 and the end of the bell crank lever and rod containing a spring with limited motion, whereas in the Hoyt patent there is an adjustable member which in any one position of the outside tubing is a fixed length. In the Hoyt patent there are two members, 240, 242, which according to the patent are loosely mounted on the support, adjustable support of this patent. These members in the Hoyt patent extend to face members 246 and are pressed against them by springs contained within the cylinders 230, 232, meeting the description of the claim calling for "loosely mounted members on the support." In the McFeely patent attached to the support at the end of the bight by the projection 64 we have a spring which produces pressure on the pads 70, 70, adjacent to the bight. This spring can move under pressure. It is not rigid; it exerts pressure inward. Its function is to produce at points adjacent to the bight pressure to force the band or hold the band, force the band inward against that portion of the last. In each case, as seen in Figure 6 of the McFeely patent 1,558,737, we notice on the adjustable supporting member a part 72, against which the band may be forced by bending when the spring member 68 extends under pressure. In the Hoyt patent we also note in Figure 6, Your Honor, the member marked 236 but should be marked 234, which is at the same point near the middle of the band. In the Hoyt patent, as shown in the Defendant's Exhibit R-1, it is seen that as the springs within the part 232 yield, the band must be forced backward toward the member 234 and the lower part thereof.

At this point a short recess was taken, after which Dr. Greene resumed the stand and testified further, as follows:

By Mr. Toulmin:

Q93 Now, Dr. Greene, in order to summarize your position on the prior art with respect to the claims of the McFeely patent in suit, will you please take up each claim that is now in issue in the patent in suit of McFeely and apply to each claim those particular examples of the prior art, say two or three, that you think are

particularly pertinent in order to have some summary of our entire position. A. I have taken Claim 6 and have definitely marked the elements of this claim which appear in the McFeely patent 1,129,881, and I will mention those and also refer to the elements as found in certain other patents.

Q94 All right. A. The first element of the claim refers to end lasting wiper plates for closing over a last bottom. These are the parts in McFeely as shown on Defendant's Exhibit V-1, as 70, 71 and 72. The same elements, Your Honor, are shown in practically all of the patents in which lasting is indicated, such as the very early Copeland, Lombard, the Snow patent—both of the Snow patents which I have described, the Plant patent, the Brock patent 1,188,616; and I do not wish to burden the record with all of the different parts of those but I have described them quite fully.

The next element is "manually operable means determinately to adjust the positions of the wiper plates to initially position the wiper plates to act on the marginal portions at the end of a shoe upper mounted on the last." These, as I have told the court today, are the parts in the early McFeely 1,129,881, as shown on Defendant's Exhibit V-1, the parts 83, 84, 842, 840, and the hanging member attached to the tackers, 122.

MR. LYMAN: The parts are what?

A. 83, 84, 86, 87 with the spring inside, 88, the pin 840, the cam 842, the roller 97, the smaller numbered parts on the side members, and the hanging parts definitely attached to the tackers, marked 122, as shown on the other figure.

In the earlier patents we find these manually operable means determinately to adjust the position of the wiper plates to initially position the wipers to act on the marginal portions at the end of a shoe upper mounted on the last very nicely in the Eaton patent, with the exact equivalent of the Moenus construction if the plaintiff can plead that rigid connection is this—that is in the next one, the rigid connection. The manual adjustment is shown in the early Copeland patent by the statement in the specification that he can inwardly adjust, and also to one skilled in the art it is evident that the arm C-1 could be moved. In the patents which I have described this morning we also have the adjustable means, as shown very nicely in Pym, which is Eaton. That is a most excellent reference for a bed laster. And then in the Merrick patent by adjusting the length of the arms we have this; in the Brock patent 1,188,616;

the Brothers patent 1,135,945; and I could read others, Your Honor, but again I would like to refer primarily to Eaton and to Pym, because they are similar to the method used by the defendant.

The next element of the claim which I have marked in this McFeely patent is "means to effect bodily and swinging movement of the wiper plates to wipe said marginal portions over the bottom of the last into position to be fastened on the bottom of the last." I would like to say that all that I have mentioned before apply, and in this McFeely patent the parts from the cam 75 which drives 76.

Q95 Which McFeely are you referring to? A. I am now referring to Defendant's Exhibit V-1, cam 75 which drives the roller 76, all the way down to the parts 70, 71 and 72. I think that is means to effect bodily and swinging movement of the wiper plates. And the other patents to which I have referred have these same elements for tacker units operating with the wiper plates. These are the tacker units numbered 103, all three of them, and the associated parts which I have described in this structure, the associated parts being the cams and beveled faces which bring about this cooperative movement. We find that in other of the patents describing tackers the tackers have been definitely united to the so-called wipers, called wipers in the specification, and if we look at those, in my opinion the word "cooperating" could not be used, because in this patent, as shown in Defendant's Exhibit V-1 of the early McFeely patent, and in the same thing on the later McFeely patent, you do have relative motion between wipers and tackers at some part of the stroke, which means cooperation, and the examiner—I don't know how this was worded originally, Your Honor, but the examiner properly used the word there "cooperative." They can't move with the thing because, as you see, the end wiper of the late McFeely patent—

MR. LYMAN: I think that is purely argumentative, Your Honor.

A. (Continuing): —1,558,737, although there was practically no movement, in translation the two did rotate relative to each other and you couldn't possibly have a rigid connection between them as the defendant uses and as the early patent to Copeland teaches.

MR. LYMAN: That is purely argumentative which the witness has been giving now.

Testimony of Arthur M. Greene, Jr. (Resumed).

THE COURT: I think so. Of course, Dr. Greene is an expert and I think while it is argumentative, still he may give his ideas on that subject.

A. Your Honor, in the other patents to which I have referred, in which tackers were shown, the tacker and the so-called wiper moved together and were attached so that no relative motion could occur.

The next element of that claim, which is "having means to maintain them in predetermined relation to the wiper plates in all positions of adjustment of said plates" we have in the early McFeely patent 1,129,881, as shown by the exhibit of the defendant, these members to which I referred earlier in answer to this last question, the cooperating parts which, by previous adjustment of the spring and in placing the hold-down in there as McFeely in this patent says, will predetermine the relation which the tacker and wiper is to assume in the cycle of the machine. In the other patents which I have mentioned in which tackers are shown, there is a definite relation between the two, that is, there is no movement; the tacker and the wiper move together, and here is a hole through which the tack must go, which must be changed.

Shall I take up the next claim?

Q96. Just proceed from claim to claim, Dr. Greene.

THE COURT: Isn't it better to couple the claims that pertain to the same subject?

A. I won't mention those again, Your Honor. I will just take the claim and put in the new elements, if I may, so as not to burden the record.

MR. TOULMIN: Just a minute, Dr. Greene. I think that is a good suggestion the court makes. We have the claims here in pairs, as arranged by the other side. You might take claim 85 next.

A. In claim 85 the same elements are recited, Your Honor, except the element "additional power means for subsequently operating the wipers". Now the McFeely patent in suit (placing a chart before the court) 1,558,737, in regard to this element of the claim, I would say that in looking at Figure 3 to which I called the court's attention this morning on this very point, we have the element 296, which is a limiting bolt. This is shown on Plaintiff's Exhibit 16, and is put in there to predetermine the relation of wiper and tacker on the corner. Then we have this stop 144, which is attached to the frame, secured to the frame, rather, which limits the motion inward. Now, these positioning means are absolutely independent of the power mechanism. The

power mechanism passes through the slider 224 and through the bell crank levers, and so forth, but the power mechanism, after this acts to stop the motion, has nothing to do with it, and even before it has nothing to do with it. I again feel, not knowing the prosecution in the Patent Office, that the "additional power means" had to be put in there, that is, the part before in this claim, "means for effecting preliminary adjustment of the wipers to the contour of the shoe,"—that is these two parts here and also this other part—does some adjustment. Then it says "additional power means." Now I do not think that that meant just power means. I think the words "power means" would be one thing, but this is "additional power means," and I feel that that element is in this late McFeely patent 1,558,737, and now let us see if it is in this earlier one, 1,129,881. To my mind, Your Honor, that is not in the early McFeely patent except in the sense of interpretation of the plaintiff, and if that interpretation is taken, then these power means are power means and that power means is power means (indicating). That is, we are faced with the meaning of that word. If "additional power means" means "power means" only, then the McFeely has it completely. So that this claim 85, in my opinion, and its elements, would be met by this early McFeely patent, and I have called attention to the parts which would meet that. Now, in claim 23—

Q97 —Are there any other patents in connection with claim 85 that you wish to call the court's attention to, or are you through? A. I beg your pardon. I have already called the attention of the court to the other patents which care for all the elements except this additional one in claim 85, and I would say that in those machines there are not additional power means. I think I have covered that then, Mr. Toulmin.

Q98 Do you mean, Doctor, that it is not an additional power means unless it is construed as the plaintiff has construed the matter? A. Yes, sir, that is right.

Q99 Now go to claim 23. A. I have placed my comparison of claim 23 on Figure 19 in order to bring out the elements of the claim. This claim calls for a substantially U-shaped clamping member, which is part 52, which is colored green in this figure, which was colored in this form to correspond with the color used by the plaintiff. I am now using Exhibit W-1. On our patents, Your Honor, this member, should you look at the patents, would be colored orange, but in order to bring out the similarity it was thought advisable to

use the colors that matched on the two figures. So that we have that U-shaped clamping member, and I would say, to save time, that this U-shaped clamping member is shown in all of the patents mentioned dealing with this element. Then "means to support a last and shoe upper", which of course is the jack underneath the hold-down 100 of Defendant's Exhibit W-1. In the plaintiff's Exhibit 17 the jack is actually shown, because the hold-down is not in that part. I would also say that in all of the patents cited there is a jack to support the last; otherwise it wouldn't work.

The next one is "a movable adjusting member connected to the lower edge of said clamping member at its rear closed end." In the patent in suit that means the so-called clip of the figure. And in the early McFeely patent 1,129,881, as shown by Defendant's Exhibit W-1, we have this back stop, which is not the same as the support. It has the function which was claimed by the plaintiff of moving the last forward, and in the sense in which the plaintiff met that in his testimony, Mr. McNulty, if such an interpretation is at all possible when in this you have no upwiping and when in this patent you have upwiping and also in the exhibit or model A you have upwiping. Your Honor may recall the part which limits the motion of the hold-down on that model was screwed all the way up and then a jam nut was put on to prevent somebody—I don't know who; maybe us—moving the thing. That is, you have got very little upwiping possible in that thing because it was set that way. The patent drawing doesn't show that jam nut. The jam nut shouldn't be there; it should be so you can arrange it to vary the amount of upwiping, and in this early McFeely 1,129,881 there is no upwiping; therefore, there is no need of a support. In the later McFeely there is upwiping and the support is necessary.

Q100 Let me ask you right there, if you assume, as the plaintiff has, that that back support is just the same in connection with the heel band, whether there is an attachment between the two or not, then as I understand it, the first McFeely patent completely meets this element. A. Absolutely; absolutely.

Q101 Pass to the next element. A. The next element is "means to support the lower edges of said clamping member at opposite sides." These are the grooves in 51 and the band 58. In the early McFeely patent 1,129,881 they must be there; otherwise the thing would drop down. And in the later McFeely, as shown

on Defendant's Exhibit 17, there is, as shown by another view, a clip going up beneath the band. In each case, however, there is a support at the opposite sides of the band.

The next element is "pressure members" — Before leaving that, Your Honor, I would like to say that practically all, if not all of the patents which I have discussed yesterday and today have this element and also the element 8. In certain of the patents, such as 1,188,616 of Brock, there is a support at the rear portion. You have seen that and I have called attention of the court to it.

Now, the next element: "pressure members arranged to engage the opposite sides of the U-shaped clamping member at points above its lower edges and to press said sides inwardly to force the end of the upper in close conformity to the last." These are the parts, 51, as shown on the defendant's Exhibit W-1, of the early McFeely patent, and of course are the parts marked "pressure members" in the Plaintiff's Exhibit 17. Now, if we look at the Brock patent in particular, in fact, if we look at all of the patents which I have discussed, there is no one that does not have pressure members to squeeze the opposite side of the clamping means against the last.

The next element is "manually operable means to move said adjusting member to slide the U-shaped clamping member relatively to said pressure members." The pressure members are the side members which force inward, 51, 51, in 1,129,881 of Defendant's Exhibit W-1, and the so-called "Pressure Member" of Plaintiff's Exhibit 17. In the patent in suit this element refers to the moving of the support, as it is called, by the handle 92 through the gear wheel in the McFeely patent 1,129,881. On the Defendant's Exhibit W-1 we have a movable back stop 612,693, which is not a support but it is a stop that moves this band relative to the pressure members, because if you shorten that up one inch these members have got to be drawn back over the pressure members, so that the stop does that. And if the interpretation put upon this element by Mr. McNulty is true, then it is met also by this as well as by defendant. And even in the members such as the method of support used by Brock in 1,188,616, where there is a chain, that may be moved forward, and the new conformation of that part must move the other parts into a new relation.

The next element in the claim is "means to operate said pressure members to clamp the shoe upper," and

that is the mechanism of the cam track, which is the rear cam track in each of these patents, through a similar kind of an arm and finally acting through the bell crank levers to clamp the side. That is, the means to operate the said pressure members in the early McFeely patent will be the equalizers, the pin, the pinion not shown in the picture, the bell crank lever connected with the back cam face, the equalizer, the side members, and their cooperating parts. That is, in the early McFeely we have in the same way as in the later McFeely "means to operate said pressure members to clamp the shoe upper," and that is the clamp 64, the cam and pinion 61, the equalizer 134, and the head connecting the springs 57, 695.

Then the next element is "end wiping mechanism to wipe down the edges of the upper over the bottom of the last." And that I have described in each of these as the wipers.

Q102 What are you referring to now, Dr. Greene? A. The wipers which in the early McFeely, 1,129,881, Defendant's Exhibit V-1, are the parts which drive the wipers 70, 71, 72, and extend backward from them to the roller 76 and the cam 75. And in the later McFeely patent 1,558,737, Plaintiff's Exhibit 16, we have the same arrangement extending from the wipers, which were 254, back until finally we reach the cam roller 226 of this Exhibit 16 of the plaintiff, and its cam track 225 in the cam wheel. In the earlier patents, other patents which I have mentioned this end wiping mechanism may be a handle—in so many of them it is because they are bed lasters—and it may be a crank and connecting rod, as I showed the court this monring.

Q103 Dr. Greene, do you find in any other of the patents than the first McFeely patent, in a single patent, the combination of a heel band attached to a back support which can actuate it, a means of adjusting the heel band to compress it on either end, and wipers? Do you find that combination in any of these other patents? A. May I ask if you stated the back support was adjustable?

Q104 Yes, an adjustable back support. A. I should say a number of patents would meet that. Brock, 1,188,616, combined with its corresponding patent 1,002,818, and Cavanagh, 1,130,142 I believe would meet it; Plant would meet it 958,280.

Q105 That is enough, Doctor. That is sufficient for my purpose. Now will you proceed to the companion claim, 91, and point out the particular prior art patents

that apply to that claim? I think in view of the fact you have already explained this, if you just call off the numbers of the patents it will be sufficient. Give His Honor the reference to this. Do you understand, Doctor? I just want the numbers of the patents that apply to claim 91. A. Of course, the McFeely patent, as described, 1,129,881, has the elements.

Q106 What are the patents now besides that first McFeely? A. I will give them to you in just a moment. The Lombard, 524,445; the Brock patent, 610,935; the Cavanagh, 1,130,142; the Brock patent, 1,188,616; and the Pym patent, 1,368,968.

Q107 Now, Dr. Greene, will you turn to claim 42 and call the court's attention to the prior art as applicable to that claim in anticipation of it? A. The claim 42 contains a functional statement which reads as follows: "mechanism in timed relation to the clamping means to depress the hold-down and support to position the shoe bottom determinately below the plane of the wipers." Now this functional element, in my opinion, in connection with the disclosure of the McFeely patent 1,558,737, definitely means upwiping, which has been dismissed from this case. If this be interpreted to mean upwiping, I have only the patents of Plant and of Merrick, mentioned earlier in the morning, as performing this action. If this part of the claim is interpreted in a manner as described by Mr. McNulty, then of course this particular element is met by the early McFeely patent 1,129,881, in the description of the action of the hold-down and band cooperating together, and with such an interpretation there are a number of patents which will meet this claim very clearly. One of them of course is the McFeely patent, because the only new element which has been brought in here is the action of the hold-down and jack to move the last, to depress it a slight distance after the first wipe, between the first and second wipes. The elements then are found in Pym, 1,368,968, with the exception of the adjustment of the hold-down, which is the screw on the rod 222. This element, however, is old in the art. As I pointed out this morning, the claim has so many elements in it that it is difficult to find one patent which covers all, under the interpretation given by the plaintiff, but in McFeely 1,129,881 all of these points are made in that interpretation, and also Pym 1,368,969, with the exception of the old element relative to the adjustment of the hold-down.

Q108 You have completed the claims in McFeely? A. Yes, sir.

Testimony of Arthur M. Greene, Jr. (Resumed).

Q109 Will you turn to the Hoyt patent and pick out several of the prior art patents as to claims 19 and 21 that you want to call the court's attention to? A. I would like to call the attention of the court to claim 19, and in connection with it refer to the patent to Snow, which I described yesterday. It is the second Snow patent, 946,708, and particularly Figure 3 of that patent, Figure 3 of Snow, 946,708. And in the claim 19 we have "a substantially U-shaped flexible band operable to clamp the heel end of the shoe", which is common to all of the patents which have been referred to and to this one also. We come now to "an operating member and unyielding connections between said member and the band for forcing the ends of the band against the shoe." In this particular patent the operating member, as seen on Figure 2, is the cam 26, 25, which cooperate with a spring to move 24. Then in the Figure 3 it will be noted that 24 is connected to the cross bar, which is solid, the side links 18, which are solid, and the ends of the member 12, which are also solid. If in the interpretation given by the plaintiff the yielding means cannot be included in this claim, which of course would make an inoperative device, then in this, from the spring on, the interpretation would be met for this element of the claim. Then we have a final element: "separate yielding means operating on each side of the band adjacent to the bight of the band to press such portions of the band against the shoe." And by looking at this patent we find the wedge 35 loosely mounted to move on the cross bar and the cross bar held by 24, which is attached to a spring. Then this wedge presses also against the movable members, which can be freely moved to adjust themselves, which press on points of the band adjacent to the bight. In my opinion this one patent anticipates the claim if the claim is to be an operable one. That is, it does have the spring, which must be in there.

If we now go to claim 21 and read the elements of that in connection with the Pym patent we find, Your Honor, on Figure 9, Sheet 7, a substantially U-shaped band, which is the part marked 78; means of supporting the band, which is the frame 79, resting upon guideways and supporting the pivots 85 and the bolts 97 which carry the bent pin 78 which is also attached by screws. The next element is "devices comprising arms loosely mounted on the supporting means." These are the arms 79, which are pivoted on the part 81 which corresponds with the supporting means of this patent. Your Honor

will recall that in reading the patent I called attention to the fact that the claim speaks of the arms of the patent, 242,240, as being loosely mounted on the supporting means, so that this 81 is the exact equivalent and will be seen also in the Figure 4 of the patent. Then the next element in this claim are "means normally operative to press said devices against the band." And these are the springs which are mounted in the side—not the end members but the side members of this frame 79, and are shown in Figure 11.

Q110 Now, Dr. Greene, will you take up the question of the infringement by the defendant Williams' machine of the claims in the McFeely patent, and will you point out your views on that, to make the issue between us? A. The claim 6, Your Honor, calls for the elements "and tacking units cooperating with the wiper plates and having means to maintain them in predetermined relation to the wiper plates in all positions of adjustment of said plates." That element is not in the defendant's structure, as the tacking units do not cooperate in the sense of McFeely. McFeely has a structure, and to describe what he has invented he uses the word here, and properly uses it, of "cooperation" between the tacking units and the wiper plates. They are not connected together; they cooperate. And I do not find the tacking units cooperating with the wiper plates to maintain them in this predetermined cooperative position for all adjustments of the plates. In claim 21 we have "a movable adjusting member connected to the closed or rear end of said clamping member" which is called for as an element of claim 21.

Q111 Just a minute, Doctor. I think you have the wrong claim. It is claim 23. A. Yes. This is the old claim that has been cut out. In claim 23; "a movable adjusting member connected to the lower edge of said clamping member at its rear closed end." That is the clip which is missing in the defendant's structure. Then we also have "manually operable means to move said adjusting member to slide the U-shaped clamping member relatively to said pressure members." In the defendant's construction, Your Honor, there is no connection between the support at the bight of the band and the band to cause this motion called for in this element of the claim between the band and the side members. A back stop will prevent the band from going back beyond its limit when the band is forced backward by the last mounted on the jack as it is pushed in. That is, if you

notice in the defendant's structure outside the band when open usually—in fact, every time I have seen it it has always been away from the back stop, and it took the motion of the post to be forced in in order to bring that about, and so the movement is caused by the last, and the amount of motion which is going to take place is fixed by a back stop. There is no question about that. But the motion is not produced by that but it is limited by that. So I do not find that element which is in claim 23.

Coming now to claim 42, I do not believe that the defendant has the element "mechanism effective in timed relation to the clamping means to depress the hold down and support to position the shoe bottom determinately below the plane of the wipers." That is a complete description of the action of the hold down to produce upwiping.

Then going further to another element, "the said hold-down mechanism being automatically operative subsequently determinately to raise the hold-down", is not present, as power is the thing which is used to operate this mechanism, which is not present in this element of the claim. Then we come to "the said power operated mechanism", referring to the mechanism above, "being operative substantially coincidently correspondingly to raise the said support to engage the bottom of the last and shoe with said hold-down with the shoe bottom positioned substantially in the plane of the wipers." In the construction of the defendant, as in the early McFeely patent and shown on the Defendant's Exhibit T-1, the early upward movement of the jack as the hold-down is raised from the configuration of the cams is produced by a spring similar to this 3. So that we do not have an element called for, power operated mechanism, to do this. That is, the first thing is the spring and then there is a follow-up motion with that. And, lastly, the final element, "manually adjustable means for determinately varying the amount of vertical movement of the hold-down"—not the position but the amount of vertical movement of the hold-down. There are no manual means of doing that on the defendant's structure as he has had this machine from Germany. As set up and as used, there was no manually adjustable means for determinately varying the amount of vertical movement of the hold-down.

MR. TOULMIN: That has to do with that side strap, Your Honor, that we had some discussion about. A.

Testimony of Arthur M. Greene, Jr. (Resumed).

Then we come to claim 85, and in that claim, as I pointed out to Your Honor this morning, the means for preliminary adjustment of the wipers, particularly two parts of that, 244 and 298, were absolutely independent of any power means and therefore additional power means were needed. Now if you will look at the Pym patent, which describes the structure used by the plaintiff very nicely, as it is a modification of Eaton—

Q112 Do you mean plaintiff? Did you mean plaintiff when you were describing it? A. I should say the defendant's structure. If you look at Figure 6 of that patent, Your Honor, you will note that the means for driving—or the means for driving this—

THE COURT: —Figure 6?

A. Figure 6 of Sheet 5 of the Pym patent 1,368,968.

THE COURT: I have it.

A. I am reading this in connection with the element of the claim 85 which refers to the preliminary adjustment of the wipers, and as explained this morning to Your Honor, that means is the bar 130 which arranges the only power means which this has to do wiping and is not separate. That is, the whole interior structure is not changed by this, only the starting point of the elements; so that because of that I feel that the defendant does not have additional power means for subsequently operating the wipers. Then we come to the—

Q113 —Just a minute, Doctor. Will you point out on these photographs that the defendant took of our machine the means, so His Honor will have something to look at? Just pick out one or two that deal with this particular thing that you want to point out. A. Your Honor, I call attention to the Plaintiff's Exhibit 25-H, in which the complete means for applying power to the wipers from the slider or from the means connected to the cam through levers is shown, in which the operating device is complete, is not changed, and merely do we alter the position of these parts, the rack shown on the Plaintiff's Exhibit 25-I. That is, this rack is moved by the big hand wheel outside and simply rearranges the power means to force the wipers inward in their proper relation. That is, in this case you have no part of the power means which can be separated and needs to be separated and require additional power means.

Q114 Proceed with the next claim, Doctor, which I think is 91. A. Claim 91 calls for an element, near the beginning, supporting means relatively to which the opposite side portions of the band are permitted to

slide lengthwise of the shoe." If that refers to the supporting means used by McFeely, namely, the back supporting means, of course that is not present in the defendant's structure. If that refers to the side supporting means, it would be in the structure. But we come next to the important one, "means connected to the end portion of the band for adjusting it lengthwise of the shoe and relatively to said supporting means," and that of course is absent from the structure.

Q115 Will you now take up the Hoyt patent, just the two claims, and point out your views as to the non-infringement of those claims? A. In the Hoyt patent I would like to use in connection with the claim 19—I would like to point out in the claim 19 that the element of "unyielding connections between said member and the band for forcing the ends of the band against the shoe" is not present, as a spring must be between the operating members. Then in the claim 23—.

Q116 —Claim 21. A. Claim 21, we have the second element "means for supporting the band." As pointed out to Your Honor, the supporting means refers to the back member of the Hoyt patent 142 which is the equivalent of the clip. In the patent specification which I read to the court on my earlier testimony this particular part is spoken of as the supporting part. That is not in the structure of the defendant. Then "devices comprising arms loosely mounted on the supporting means" is not in the structure of the defendant exhibited in the court. Those elements are missing from claim 21.

MR. TOULMIN: That is all with the witness. You may have him.

THE COURT: We are five minutes from adjournment time and there is very little we can accomplish in that time, so I think we will adjourn until 10:00 o'clock Monday morning. Monday afternoon, as I say, we have our usual heavy bankruptcy and motion docket, so we will run until 12:30 on Monday and then adjourn this case until Tuesday morning.

Thereupon an adjournment was taken in accordance with the order of the court.

MORNING SESSION,

MONDAY, JANUARY 23, 1939.

Court met pursuant to adjournment, counsel being present on behalf of both parties.

Thereupon,

Arthur M. Greene, Jr.,

resumed the stand and testified further, as follows:

CROSS-EXAMINATION

By Mr. Lyman:

XQ1 Professor, you say that you have examined the defendant's machine in operation? A. Yes, sir.

XQ2 Where was that? A. At Portsmouth, Ohio, on two occasions.

XQ3 When were those two occasions? A. Well, one was December 4, 1937, and the last time was January 12th of this year.

XQ4 Did you see all four machines operating? A. I did not.

XQ5 Which machine did you see operating? A. I saw the three machines of which I have the numbers, which I took at that time. Each of these was preceded by Number 1224, Your Honor, giving the type, and the machines which I saw were 87002, 86680 and 86679.

XQ6 The fourth machine that you did not see was the one at the Minster plant, I suppose. A. That is right.

XQ7 The machine that is in the hall here is one of the machines which you saw? A. Yes. It is the latest machine bought. The Minster machine, which is Number 3, is 86681, and then comes 86680 and 86679. Those I believe, from the testimony given, were the first ordered; and then 87002, which is the one in the hall, is the last one ordered.

XQ8 Did you see all of those machines operating, those three machines? A. Oh, yes, and I examined the operation to make sure that, as far as I could see, they were operating in an identical manner.

XQ9 At the time you saw those machines operating was that wing screw that we have heard about used on the machines? A. No, at neither of the times.

XQ10 Neither of the times? A. No, sir.

XQ11 Was the heel band provided with a clip which had been sawed off? A. I believe it was. I am not

sure about the first time, Mr. Lyman, but I think they were sawed before I went there.

XQ12 Have you ever seen any of defendant's machines operating with a heel band in which the clip was not sawed off and in which the screw was used? A. I cannot say that. I believe I have not. All of the machines had the clips sawed off. But may I answer this?

XQ13 Yes. A. The time at which I cannot say the clip was sawed off it was free from the end of the back stop; and that I observed very carefully.

XQ14 At the time when you saw these machines in December, 1937, was that spring which has been called the "bight spring" removed from the pressure members in defendant's machines? A. I don't think it was the first time.

XQ15 It was the second time, was it? A. Yes, sir.

XQ16 Did you examine all of the machines to see whether that spring had been removed from them? A. I did not. I observed the operation and I believe they were removed.

XQ17 Somebody told you they were removed? A. And the operation indicated that.

XQ18 How did that operation indicate whether or not that spring had been removed? A. Only that you could see no motion as the band clip closed in during the clamping operation.

MR. LYMAN: Your Honor understands what I mean?

THE COURT: Oh, yes. That is at the rear of the heel.

By Mr. Lyman:

XQ19 Was this bight spring removed upon your advice from the defendant's machines? A. No.

XQ20 It was not? A. No.

XQ21 Were you consulted about the removal of that bight spring before it was removed? A. No.

XQ22 You simply found that, when you saw the machine the second time, that bight spring had been removed? A. I was informed of the fact that it had been, and I noticed that its action was such that it had been.

XQ23 On any of these machines as you saw them at any time was there an adjustable stop for varying the extent of vertical motion of the hold-down? A. There was not, sir, not a manually adjustable one.

XQ24 No manually adjustable one? A. That is, by changing the machine; that is, you could change the

wipers or any part by taking bolts off and putting new members in. You could alter it that way, but there was no manual adjustment.

XQ25 That is, you could remove this fixed stop— A. —You could remove parts by wrenches and taking springs off and reconstructing the machine.

XQ26 You mean now definitely that you could accomplish that purpose by taking off that spring and the fixed stop back of it, which are on the side of the machine, substituting another fixed stop of different length and putting that particular spring back? A. Yes. That could be done just the same—

XQ27 —Just answer my question, please. A. — As in the case of the wipers, by taking the others off and putting new ones on.

MR. LYMAN: Your Honor, we have had mounted up on these placards those photographs which were taken of the defendant's machine, as we said we would do. We have had them grouped together on four different cards, so that the court can see from each card the general views of the machine grouped together. There you will see a left-hand side elevation, a right-hand side elevation, a front elevation, and here is a front elevation getting a little nearer (exhibiting cards to the court), and this collection entitled "Wiper-Tacker Mechanism" shows there a front elevation, a bottom view that had to be taken from underneath; the photographer had to put his camera in underneath, there and take the floodlight and take it looking upwards. I am sorry. That particular picture shows it taken out. That statement is not true as to this photograph. That picture was taken with it out of the machine. Here is a top view of the tackers (indicating), and here is the front elevation of the tackers, showing the wipers. Here we have a collection (indicating another card), showing the heel band adjusting mechanism, a right side elevation, a view from beneath. That is the photograph that had to be taken by the photographer getting underneath the machine and pointing his camera up and turning on his floodlight. And here is another view from beneath, which is much the same as that except it shows the parts in a different relationship than that in which they have been viewed. And here is the detail view, bottom plan view. Then we have the fourth of these collections (indicating another card), entitled "Heel Band Pressure Mechanism." Here is the view from beneath, the same one we have seen before, but it is now correlated with others pertaining to this particular situation, the view from be-

neath that particular member, the bottom-top view of this assembly, a bottom plan view of this assembly, and a top plan view of this assembly and laying them loosely in their relationships. We need to have something of this kind so the court can see the defendant's mechanism. I have been surprised, by the way, that with all this multitude of pictures that we have seen of this machine produced by the defendant we have not seen any pictures of this machine, any drawings whatsoever. This is our substitute for them. We have put legends on these devices, too, and if there is any criticism of the legends I shall let the Doctor tell me what it is.

MR. TOULMIN: In the first place, it is the obligation of plaintiff to prove defendant's structure that it claims is infringement. That is its obligaton. We have produced, and I want the record to again show it, the machine not only voluntarily before litigation but have brought it here and had a mechanic take it apart. These photographs are very nice but I want to be sure that we are not misled by the legends, which are self-serving. And I want the record to show, before we go further, to what we object of these legends. I will take each sheet and call out what I object to and counsel on the other side can correct it, if he wishes, before he proceeds further. On the sheet entitled, "Heel Band Pressure Mechanism"—

THE COURT: —I wonder if it wouldn't be better to have those identified at this time.

MR. LYMAN: Yes. I will offer these in evidence.

THE COURT: Have them marked; then you can refer to them by exhibit number.

The four sheets containing collections of photographs, so offered in evidence by counsel for plaintiff, are made part of this record, marked as follows:

Plaintiff's Exhibit No. 29, Sheet of photographs entitled "General Views of Machine."

Plaintiff's Exhibit No. 30, Sheet of photographs entitled "Wiper-Tacker Mechanism."

Plaintiff's Exhibit No. 31, Sheet of photographs entitled "Heel Band Adjusting Mechanism."

Plaintiff's Exhibit No. 32, Sheet of photographs entitled "Heel Band Pressure Mechanism."

MR. TOULMIN: Let the record show that we object to certain of the legends on these exhibits. On Exhibit 31 the term "Supporting Clips" should be the "Side

Supporting Clips", so there will be no confusion as to the issue here on the back supporting clip.

MR. LYMAN: We will be very glad to put that on.

MR. TOULMIN: Just let me finish my statement, please. On the view from beneath, on Plaintiff's Exhibit 31, there is the statement: "Shaft of Manual Adjustment of Heel Band," which we object to as being incorrect, as the heel band is not adjustable with the shaft, due to the severing of any physical connection between the back of the heel band and this member.

We object on the same sheet to the legend "Cam-Driven Operating Member for Closing Heel Band." This is not the operating member but the member which is directly engaged with the cam is the operating member, according to the specification of the patent in suit, and is the term properly employed.

We also call attention to an error in the lead line of this same view with reference to rack slide, as it extends to an end backing member rather than to the rack.

We object to the upper left-hand photograph on Exhibit 31, as to its legend, entitled "Manual Adjustment for Heel Band." This is not an adjustment for the heel band in this machine.

In Exhibit 32 we object to the use of the term "Supporting Clip" in the several views where it should be "Side Supporting Clip", so there will be no confusion there.

We also object to the legend on the upper left-hand photograph entitled "Cam-Driven Operating Member for Closing the Heel Band", for the same reason stated as to the same legend on one of the other sheets.

THE COURT: Decision will be reserved upon those objections, because I assume that you will work them all out.

MR. LYMAN: We will ask the witness, Your Honor.

By Mr. Lyman:

XQ28 You have examined the legends on these drawings, Professor? A. I have.

XQ29 (Placing Exhibit 31 on easel before court and witness): With reference to these legends to which Mr. Toulmin has called attention, referring to Plaintiff's Exhibit 31, the parts marked "Supporting Clips" in the photograph B are the side supporting clips, are they? A. They are, sir.

MR. LYMAN: So we will consider that legend amended.

Testimony of Arthur M. Greene, Jr. (Resumed).

THE COURT: Yes.

MR. LYMAN: (Marking exhibit): We will have that done with a pen later, Your Honor.

THE COURT: Yes.

By Mr. Lyman:

XQ30 The same supplement might be made on photograph D of this exhibit? A. That is correct, sir.

XQ31 It was said that there was an error in the lead-line leading to the rack slide in photograph D of Exhibit 31. The rack slide referred to is the one that is shown in photograph B on this figure, is it not? A. That is correct, sir.

XQ32 And the lead-line points to that element? A. Not quite, sir. It is a little bit above it.

XQ33 It points to this part of that element, doesn't it (indicating)? A. That is not the rack slide. The rack slide is that part shown in B.

XQ34 But it is one integral element, isn't it? A. Yes, sir.

MR. LYMAN: Your Honor, that is plain enough, I think. (Exhibiting photograph to the court): There is the legend leading to that element there, in which you see the rack slide again underneath. If you are going to speak about the rack—

THE COURT: —Of course, the rack can't be seen.

MR. LYMAN: And it is this element which is there called the rack slide.

THE COURT: I don't know. It can be qualified that it is intended for that.

MR. LYMAN: I think that is plain.

MR. TOULMIN: May I call your attention, Mr. Lyman, to the fact that the so-called rack slide of Photograph B can be seen in this photograph D just a short distance below, and that is the only reason we objected to it.

By Mr. Lyman:

XQ35 Doctor, will you add in pen, make the end of that lead-line continue until it does meet the actual rack slide? A. (Marking exhibit): I have done so on Photograph B of Plaintiff's Exhibit 31.

XQ36 Criticism is made of this legend in Photograph D of Exhibit 31. The legend says: "Shaft of Manual Adjustment of Heel Band." Isn't that the shaft of the manual adjustment of the heel band? A. No, sir. The heel band is not connected to that, and it merely is the

manual adjustment for what McFeely in his earlier patent—

XQ37 —No, please don't go into— A. —calls the "back stop", and therefore we call it the "back stop".

XQ38 All right. Now, if the clip were on, about which there has been so much talk in this case, and the heel band attached to that back stop as it was before it was removed, then that would properly be called "Shaft of Manual Adjustment of Heel Band", would it not? A. The patent in suit calls for—

XQ39 —Can't you answer that question "Yes" or "No"?

THE COURT: I think the question here is, what was the purpose of that shaft originally.

XQ40 Yes. A. Originally in the machine in which the wing nut did not drop it would move the heel band.

XQ41 What was the purpose of it? A. And the purpose originally probably was that the designer built it that way, the nut fell off and it didn't work, and it was then sawed off. In the machine which is in court that is not the attachment for the heel band. It is for the adjustment of the backstop of the early McFeely patent.

XQ42 Let us assume that this refers to the machine as it was in its original condition, before the wing screw dropped off. A. I never saw the machine in that condition.

XQ43 All right. Let us assume it was in that condition; then this is a correct description of that action? A. Assuming it was in that condition, it is a correct description of that action.

XQ44 Then the same criticism and the same comment is applied to the same element marked on Photograph C of Exhibit 31 "Shaft of Manual Adjustment of Heel Band"? A. That is correct, sir.

XQ45 And the hand-operated member which is indicated in Photograph A of this exhibit with the legend "Manual Adjustment for Heel Band", that is the manually-operated member which turns this shaft, and so the same comment would apply to that legend? A. On the assumptions made by you, yes.

XQ46 Then it is said with reference to the legends on Photographs C and D of Exhibit 31 that the legend "Cam-Driven Operating Member for Closing Heel Band" is not correct. Do you agree with that statement? A. That is not driven by the cam directly. There is a spring, in fact two springs, shown by the two rivet heads there, which are interposed between that member

and the cam, and unless you call every member operated by the cam, including links, levers, gears, as cam-operated members, you cannot call that the cam-driven operating member. In the sense that it has movement resulting from the movement of the cam you would call it *a* cam-operated member, but it is not *the* cam-operated member, because there are other parts between that and the cam.

XQ47 Your point is it is not directly driven by the cam, that there is a spring interposed between the cam and that member? A. There is a spring, and must be a spring, to furnish the yielding means necessary in that structure.

XQ48 I will ask you to sketch that construction showing a sketch, Professor, indicating the connection between this member marked in the photographs "Cam-driven Operating Member for Closing Heel Band" and the cam. A. I will take the patent and copy from it, the patent drawing, Your Honor.

XQ49 This is defendant's machine. I am asking for a sketch of those connections in defendant's machine. A. As I recall the machine there is a bar such as this (making drawing) in side view with two springs coming back, and then we have, as I recall it, the edge members. In this machine, Your Honor, there is not—

XQ50 —Perhaps you had better just draw your picture first, Professor, and then comment upon it. A. (After completing drawing): If it please the court—

XQ51 May I see the sketch? A. Yes.

XQ52 (After examining sketch it was handed back to the witness). A. As I understand it, Your Honor, there is a cam, we will call it a face cam, on the rear end of the cam wheel, against which a roller rests and turns. The roller is on the arm of the bell crank lever, which I would like to—

THE COURT: —I wonder if we couldn't shorten this. This is all because of the legend on the side that there is an objection. A. I don't know what the purpose is.

MR. LYMAN: Yes, Your Honor.

A. I don't know what the purpose of the question is, Your Honor.

THE COURT: Well, the movement of that part gets its power from the cam, doesn't it?

A. Yes, sir, just as every other part of the whole system, clear to the edge—

THE COURT: —This says "Cam-driven operating"—

Testimony of Arthur M. Greene, Jr. (Resumed).

MR. LYMAN: —"Cam-driven operating member for closing heel band".

THE COURT: It does get its power through the cam. A. Absolutely, sir, through a spring; that is correct.

MR. TOULMIN: The reason for it is, Your Honor, the word "operating member" has a particular significance in that claim, in the construction of it. That is the reason we want to be perfectly clear about it.

THE COURT: What would you think—

MR. TOULMIN: —I think the fair thing would be not to call that an "operating member", which it is not. An "operating member", according to the patent we are here to consider, is a lever working like my elbow, and here is a cam which operates it. This is away down in the train of mechanism.

THE COURT: I think we are drawing that too fine. We go beyond that. You may have an exception. I think the legend fairly describes the part there.

MR. LYMAN: We will come to that question a little later, Your Honor, as to whether it is properly called an "operating member".

THE COURT: You may have an exception. I think that is getting a little over-technical.

Counsel for plaintiff thereupon offered in evidence the sketch produced by the witness, and the same is made part of this record as **Plaintiff's Exhibit No. 33.**

By Mr. Lyman:

XQ53 Will you indicate on that sketch you have made, Professor, by the letter "A", the part which is designated on these photographs as the "cam-driven operating member for closing heel band"? A. I mark on the drawing, which shows few of the operating members to drive the heel band, the letter "A" on this particular part of that system, which in photograph D is labeled "Cam-driven Operating Member". That is the part which I have marked "A".

XQ54 There may be some confusion here, because I see you have already gotten an "A" and a "B" here. Perhaps you had better change that. A. I will change the original letter "A", which referred to one of the two pinions on a shaft, to the letter "C", so that "A" may stand as it is marked.

XQ55 Now, I would like to be sure that I understand your position regarding infringement of the claims in

suit. And, Professor, may I say I don't wish you to argue the question again. We have heard your arguments. I want to be sure I understand just what your position is.

MR. TOULMIN: I object, Your Honor, to saying that to the witness. I don't think it is fair, the caution.

THE COURT: Yes, I think the objection is well taken. Of course, it is always a question for the court, and if there was any objection at the time to the testimony, the objection should have been stated. But I do think the objection to the caution is well taken.

XQ56 All right, strike out the caution from the question. Just why do you say that claim 6 of the McFeely patent is not embodied in the defendant's machine? A. I say that the elements of claim 6 of the McFeely patent 1,558,737 which are not found in the defendant's machine are the last two elements which I read: "and tacking units cooperating with the wiper plates and having means to maintain them in a predetermined relation to the wiper plates in all positions of adjustment of said plates."

XQ57 And you say that in the defendant's machine because the tackers and wipers are fixedly related they do not cooperate, is that correct? A. I say that in view of the claim 6 and the early Copeland patent.

XQ58 Let me ask you this way: As a matter of fact, in the defendant's machine the tackers and the wipers do cooperate, don't they? A. Well, it all depends upon what "cooperate" means. Words have different meanings. By the dictionary of this patent "cooperation" does not mean direct connection. That is, Mr. McFeely has described what "cooperation" means, and then has asked for a claim on that, in my opinion.

XQ59 Just answer the question. As a matter of fact, the wipers and the tackers in defendant's machine do cooperate to get the result, don't they? A. As a matter of fact they do not cooperate in the sense of this patent.

XQ60 I will ask you to forget your definition. We understand you are giving the word "cooperate" a special sense, then, as a result of something the patent discloses? A. Yes.

XQ61 You are saying the word "cooperating" must be used in a limited, narrow sense, because of something this patent contains. A. In view of Copeland I see nothing else that can be possible.

XQ62 In view of a Copeland prior art patent? A. Yes, sir, and the wording of this patent.

XQ63 And the wording of this patent. Then you say that the word "cooperating" as used in this claim

must be used in a narrow, special or restricted sense; is that right? A. In the sense of this patent, yes, sir.

XQ64 Forgetting all of that, there can be no question that when you have a machine that is intended to do what this machine does and what the defendant's machine does, the tackers and the wipers cooperate in that result. A. I can't forget things.

XQ65 I think that doesn't need any argument. The wipers come in and wipe down the lasting allowance and hold it there while the tackers drive the tacks to accomplish the result of this machine, don't they? A. They drive tacks when they get into final position for driving tacks.

XQ66 Now in that respect, in the respect that in the defendant's machine the wipers and the tackers are combined together, as it were solidly, so that they move together, in that respect the defendant's machine is like the Model D machine, the commercial Model D machine of the plaintiff, isn't it? A. Yes, sir.

XQ67 Then we have your position, I think, as to the reason why you say Claim 6 is not infringed by defendant's machine, and I would like to turn to claim 85, which is the next, which is the other of the wiper-tacker claims and, if I remember what you have said, you denied that that claim was infringed by the defendant's machine for the reason that in defendant's machine there is no, what you call "additional power means". A. That is right, sir.

XQ68 Well, let us now look at the photographs of the defendant's machine and see just how that mechanism operates. I am referring to Plaintiff's Exhibit 30, entitled "Wiper-Tacker Mechanism". Now correct me if I am wrong here. Referring to the Photograph A, the operator, in order to adjust the position of the wipers, the initial position of the wipers, turns this hand wheel, which is marked "Manual Adjustment", away. Is that right so far? A. Yes, sir.

XQ69 That turns a shaft upon which it is mounted, which has a spiral gear marked A-1 and another spiral gear marked A-2 in that photograph. A. That is correct.

XQ70 Turning now to the next view, Photograph B, as this wheel, this manually operable wheel is turned, spiral gear A-2 meshes with a spiral gear marked in Photograph B B-2, and spiral gear A-1 meshes with spiral gear B-1, seen in the photograph B; is that right? A. I think it is right. The two spiral gears on the cross

shaft gear with the two spiral gears which are on a longitudinal shaft, and I think your statement is right; but whether it is B-1 and A-1 I am not sure. But the two spiral gears on the cross shaft gear with two spiral gears on shafts which are directed axially.

XQ71 Now, the movement of this spiral gear B-2 seen in Photograph C turns a threaded shaft upon which a part marked "Rack" is mounted and the movement, therefore, of the spiral gear B-2 causes that rack to travel along the shaft. A. That is correct, sir.

XQ72 The movement of that rack rotates the element marked "pinion" in Photograph C of this Exhibit 30; is that correct? A. That is correct.

XQ73 Thus the motion of the hand wheel shown in Photograph A we have now traced to a motion of the pinion shown in Photograph C. Now the pinion in Photograph C is fixed on one end of a shaft which carries on its opposite end the part marked "Segment Gear" in Photograph B. A. Correct, sir.

XQ74 So that as the operator moves the hand wheel of Photograph A he also moves the part marked "Segment gear" in Photograph B. Right? A. That is correct, sir.

XQ75 And, similarly, he moves the segment gear at the left; he moves both segment gears. A. That is correct.

XQ76 Of Photograph B, by this same movement? A. That is correct.

XQ77 Now, as he moves these segment gears, take, for instance, the one to the right, as that turns, if it turns in a clockwise direction then that will operate to close the wipers' position in, manually, to adjust the position of the wipers inward toward the shoe; is that right? A. Correct, sir.

XQ78 And, contrarywise, if turned in the opposite direction it turns them outward? A. That is correct.

XQ79 And the same thing happens at the left? A. Yes, sir.

XQ80 So there we have a manual adjustment of the initial movement of the wipers before any power action takes place. A. Yes, sir.

XQ81 In this machine here—see again if I am right—the cam is connected to the part marked in Photograph B "Yoke Attached to Wiper Power Slide". Is that right? A. Yes.

XQ82 And the movement then of the cam at the proper time moves this whole head shown in Figure B bodily

backward and forward in the machine? A. It moves the part backward and forward together with the rack pinions and all parts which have been moved and adjusted by the hand wheel.

XQ83 During that power movement this rack which is seen in Photograph C is fixed in position, isn't it? A. That is correct, just as in the McFeely patent and the Eaton patent.

XQ84 Professor, we are just trying to find out how this machine operates for the time being; so that when you now, by the movement of the power slide connected to this yoke, move that head bodily forward, the pinion which is seen in Photograph C moving over a fixed rack is going to turn. That is right? A. That is right.

XQ85 And that will also turn the segment gears which are shown in Photograph B? A. That is right, sir.

XQ86 And the result of that is that the bodily forward motion of this whole head is accompanied by an inward movement of the wipers and tackers? A. That is correct.

MR. LYMAN: I hope that is plain, Your Honor.

THE COURT: That is the only way it can go, under the circumstances.

By Mr. Lyman:

XQ87 Let me get your position clear. You say there is mechanism in this defendant's machine for a preliminary adjustment of the position of the wipers with reference to the heel of the shoe. A. Within the power system.

XQ88 There is such a means? A. Yes, within the power system.

XQ89 That is the manual adjustment of the wipers and the train of parts— A. —In the power system.

XQ90 Just a minute—

MR. TOULMIN: Just let him answer your question, please.

A. As I called attention to the patents in suit, the parts 294, 294, do not take part in the power system and are needed to adjust the motion.

XQ91 All I am trying to get at is your position on this point here. There is a manual adjustment of this machine to determine the initial position of the wipers and the tackers, isn't there? A. Oh, undoubtedly.

XQ92 Then after that initial adjustment is made then there is a power throw of a predetermined extent

that is determined wholly by the cam. A. Through the whole system.

XQ93 Is the answer "Yes"? A. Yes, through the whole system.

XQ94 That is the way the machine acts. Now, the point you are making, if I understand it, is that the segment gears which appear in Photograph B of Exhibit 30 constitute a part of the train of mechanism which does the preliminary adjustment and also a part of plaintiff's power mechanism which accomplishes the power movement? A. Just as in Pym.

XQ95 That is your position? A. Yes, just as in Pym.

XQ96 It is a fact that the power movement of this maching requires additional means beyond the means that are present in the machine for the preliminary adjustment. Correct? A. Not separate from the power means.

XQ97 They have to be additional to— A. —No, sir.

XQ98 —The power means. I understand there is additional power means that is present in this machine for the operation of the tacker and wiper mechanism, in addition to anything that is used in the manual adjustment, isn't there? A. Well, the rack which does the adjusting is the power means and is necessary for moving it.

XQ99 Answer "Yes" or "No" to my question. A. No.

XQ100 There is not? A. There is not.

XQ101 What about this yoke that attaches the head to the power slide and the cam? Is that used in the preliminary adjustment? A. Oh, yes.

XQ102 In the preliminary adjustment the yoke that attaches to the wiper power still is used? A. Oh, absolutely.

XQ103 How? A. Because if you did not do that, the moving of this part might push the whole thing along. You have to hold it there so as to move the rack.

XQ104 In the preliminary adjustment? A. In the preliminary adjustment.

XQ105 In the preliminary adjustment? A. Yes, sure. If there was too much friction, that turning might move the whole head. You can easily see, Your Honor, that the turning of this handle which moves this wheel, if there were a lot of friction—and there isn't much—I am just saying why this part in here is absolutely neces-

sary. If you turn these parts this gear would move the whole head along, and by moving this you would have to move that gear; it would be locked together. And this is absolutely necessary to hold it in position while you are doing your preliminary adjustment.

XQ106 In other words, the position you now take is that the manual adjustment for the wipers involves all the whole train of mechanism, power and everything else, the power being used simply to hold it still while you move the adjusting means? A. No. The parts which participate in the power means are the parts which participate in this preliminary adjustment completely, and not like 244 and 298 of the patent.

XQ107 And you say that the yoke which connects this head through the cam and the cam constitute part of the mechanism for preliminarily adjusting the wipers simply because they stand there and prevent this head from moving while you are adjusting them? A. They surely do.

XQ108 That is your position for noninfringement of this patent? A. Yes, sir.

XQ109 And so you say that while the machine has means for effecting a preliminary adjustment of the wipers to the contour of the shoe it has not additional power means for subsequently operating the wipers. That is your argument? A. In the sense of this—

XQ110 —That is your argument?

THE COURT: Answer the question "Yes" or "No" and then explain.

A. (After XQ109 was read): It has no additional power means.

XQ111 Well, just to make it plain on the record, during the preliminary adjustment of the wipers this head, which is marked "Movable Head" in Photograph B of Exhibit 30, and the yoke which it carries and by which it is attached to a wiper power slide, and the wiper power slide that drives it, and the cam that drives the wiper power slide, all are stationary. A. That is correct.

XQ112 They take no part in the movement of the wiper adjustment except by their mere presence? A. Oh, no; by holding the piece in this position (indicating).

XQ113 Before I proceed further I would like to continue with this matter of the legends on these drawings. There was no criticism as to Exhibit 30. As to Exhibit 31 I think we have dealt with all the points. As to Exhibit 32, these clips which are marked "Supporting Clips" in Photograph B are side supporting clips, are they, Professor? A. That is right, sir.

XQ114 We will have them so identified. A. (Marking exhibit): And the same on Photograph A, just on one side.

XQ115 The same on D also? A. Yes, on D also.

MR. LYMAN: We will have those legends changed. I think we have taken care of all of those points, Your Honor.

By Mr. Lyman:

XQ116 I would like to make sure that I unders and your reasons for your position as to noninfringement of claim 23. Will you turn to claim 23? Claims 23 and 91, Your Honor knows, relate to the heel band adjustment.

THE COURT: Yes.

XQ117 As I understood your testimony, you said that claim 23 is not embodied in defendant's machine for the reason that there is no connection between the heel band and the back-stop, the clip having been sawed off and the screw thrown away. A. That is correct, sir.

XQ118 That is your reason for noninfringement of that claim? A. Yes, sir.

XQ119 It does not apply to the structure before that mutilation was accomplished? A. I don't like to call it "mutilation", but before it was dropped off and was removed. I would rather answer the question that way. I would like to say, not to argue, Mr. Lyman I don't want to say that to quibble over words.

XQ120 You may call it an improvement, if you don't like to use the word "mutilation". With reference to claim 91 the same situation applies? A. Yes, sir.

XQ121 The reason why you say claim 91 is not embodied in defendant's machine is again the fact that that clip has been sawn off? A. That is at least one of my reasons.

XQ122 Do you have any other reason for claim 91? A. Yes, sir, and also in 23.

XQ123 What was the other reason? A. The other reason in 23 was "manually operable means to move said adjusting member to slide the U-shaped clamping member relatively to said pressure members." That was another reason, even with it being cut off it now no longer moves it. The thing which moves the side band, as I explained in my testimony, was the movement of the jack as it came back into the machine.

XQ124 I understood what you said. A. But that is another element.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ125 You say the fact that the clip has been cut off does away with that element of claim 23? A. Both of those elements.

XQ126 Now as to 91. A. In my direct testimony I stated that the element "supporting means relatively to which the opposite side portions of the band are permitted to slide lengthwise of the shoe", if that referred to the supporting means as given by the clips it was not there. If, however, it refers to what you call the side supporting clip, then it would be in there. Then the other element which is not present is "means connected to the end portion of the band for adjusting it lengthwise"—that is, the clip.

XQ127 It is your position— A. —Yes, sir. And the other part depends upon how "supporting means" is interpreted.

XQ128 Your position, again, is the same with reference to claim 91 as 23? A. Correct.

XQ129 Because by taking away that clip, cutting off that clip and throwing away that wing screw defendant has avoided further infringement of the claim which would exist except for that? A. (After XQ129 was read): I would say that this element would be present were the wing screw in position and operated.

XQ130 With reference to claim 42 of the McFeely patent you say that the defendant does not infringe that claim because there is no upwipe in the defendant's machines. A. No, I don't say that is the only reason. In the first place, the words "mechanism effective in timed relation to the clamping means to depress the hold-down and support to position the shoe bottom determinately below the plane of the wipers", in my opinion refers to upwiping. And then when we—

XQ131 —So that is the first reason why you say defendant does not infringe? A. That is the first reason. And then when we come to the next part, "the said hold-down mechanism being automatically operative subsequently determinately to raise the hold-down, the said power operated mechanism being operative substantially coincidently correspondingly to raise the said support to engage the bottom of the last and shoe with said hold-down with the shoe bottom positioned substantially in the plane of the wipers", that refers to a power means to do this lifting of the jack; and my point was that the defendant uses a spring for that and not the lower part. And then lastly we come to "manually adjustable means for determinately varying the amount of vertical movement of the hold-down"

XQ132 You don't regard that stop which is present upon the machine out in the hall as "manually adjustable means", although it could be taken off in a minute and another one put on that is a little shorter or a little longer? A. To explain my answer to this question I would like to refer to the excellent testimony of Mr. McNulty regarding this adjustment of the wipers. On examining this he found that there was a little slot in here (indicating) which would permit adjustment before the screws were tightened up, and to properly guard his answer he said that although that could be done, after it is screwed up it is definitely connected. Now, as he would not properly call this "manual" adjustment, these screws, so the taking off of a spring and a screw and the forging of a new bar can not, in my mind, be called "manual" adjustment. And so I take that position, as was properly taken here (indicating).

XQ133 Properly taken there because the operator could not get hold of those screws to adjust them. A. Yes, sir. He needed tools to do it, and so here he needed tools to do it. There is no bar here, but he has to forge a new bar. A new bar could be put in, a new cam might be put in the machine, and of course those are not "manual" adjustments.

XQ134 I have here a little sketch which I want to show you, which has been made up upon the basis of these photographs, and which I would like to have you correct if it is in error.

MR. LYMAN: Your Honor, may I explain that these photographs, the photographs C and D of Plaintiff's Exhibit 31, are looking up under the machine. They don't give the view which you will get if you were looking down upon this particular apparatus.

THE COURT: I understand.

MR. LYMAN: So we have had this little sketch made which shows, as I understand it— perhaps the Doctor will correct me, but as I understand it shows this particular part of the defendant's machine as it would look if you were looking down upon it from above. Will you say whether that is correct or not, Professor?

A. From my remembrance of the machine and from my examination of these photographs, I would say that such a position of parts could be obtained if one pushed the heel band—may I mark it?

Testimony of Arthur M. Greene, Jr. (Resumed).

By Mr. Lyman:

XQ135 Yes, certainly. A. (Marking exhibit) the heel band "A" past the side supporting clips against the back stop. That is, I have never, except when the machine was actually pushed back into this position, seen such a configuration or arrangement of parts such as this, because there usually is some space between the back of the band at the bight and the hold-back.

THE COURT: The back-stop, you mean?

A. Yes, sir. Thank you. The back-stop.

XQ136 Will you please mark the back-stop "B"? A. The back-stop is this part "B", which is only part of it. The back-stop is very nicely shown in the part "D", Your Honor, of the Plaintiff's Exhibit 32, and it is the part against which it is now raised, which I have marked "D", it is part of that complete member.

XQ137 Will you mark with the letter "C" the part which is shown on the Photograph D of Exhibit 31, with the legend "Cam-Driven Operating Mechanism for Operating Heel Band?" Please mark that "D" on the drawing. A. This is incorrectly drawn, Your Honor—I will mark the part which I believe is "D", however—in that there the rivet head which you would see on looking down there, which is connected with the spring, which is necessary to this, has not been indicated. That comes in there (marking exhibit) on my sketch, you will find.

XQ138 Carry the lead-line to the part marked "D". A. (Witness marks exhibit.)

XQ139 I wish you would roughly sketch in Doctor, the position of this side rack. A. This is the side rack right here, which is extended here. I have drawn a view perpendicular to this.

XQ140 You sketch in what there is, roughly, here, how your sketch, Plaintiff's Exhibit 33, would appear when combined with this. Just sketch that, so His Honor can see.

At this point the sketch heretofore presented to the witness by Mr. Lyman was offered in evidence and is made part of this record as **Plaintiff's Exhibit No. 34.**

A. The part, Your Honor, which I have called "side rack" would be the part which I mark "E" on Plaintiff's Exhibit 34. There are two such side racks. Now the part which I will call "rod" (marking exhibit), which extends from the rivet head, which I mark "R" on Plain-

tiff's Exhibit 33, is the rod to which the rivet head which I have marked "R" in this figure is attached. The spring is placed around the rod "R" and extends backward to a crossbar and is moved by a part attached to the bar, which has a rack on it, and moved by the pinion "C". The configuration of these parts may be slightly different from the sketch, which is diagrammatic and illustrates the principle upon which the device moves. I would have to pull it apart to get the exact configuration.

XQ141 Professor, I am suggesting that in Plaintiff's Exhibit 34 you mark the part which corresponds to the part marked "A" of Plaintiff's Exhibit 33 with the letter "A", instead of with the letter "D". A. I will change that to "A" on the exhibit, putting in the leadline, and I will change the letter "A" which I have applied to the band and make that the letter "D".

XQ142 Then the part which you have marked "A" on Plaintiff's Exhibit 34 is attached to these rack-bars E, E, so that they move with it? A. The part marked "A" fits into grooves or slots in the side of the rack-bars E, E, so that they move together; and in this machine there is a square corner, whereas in the patents in suit there is a pivot which is used, which is a little different in construction. The function, however, should be the same. That part "A" is called the "equalizer" in the patent in suit.

XQ143 However that may be, this member "A" in the defendant's machine is advanced or retracted in accordance with the motion of the cam or connections from the cam to bring that back and forth? A. No, it participates of the motion of the cam plus the movement of the spring. That is, the spring comes in there and determines the amount of movement.

XQ144 I don't want to quibble with you at all, Doctor, on that point. I just want to understand the construction. A. Yes, sir.

XQ145 That part "A" is carried on a slide, is it? That is in effect a slide? A. Yes.

XQ146 That slides back and forth? A. Yes, sir.

XQ147 As the cam operates, but, as you say, there is a spring interposed between the actual cam and that part? A. Which modifies its movement.

XQ148 Now let us look at that picture of Hoyt, the drawing of the Hoyt patent in suit, 1,508,394, as regards the heel seat adjustment mechanism.

THE COURT: Had we completed 42?

Testimony of Arthur M. Greene, Jr. (Resumed).

MR. LYMAN: I have completed it enough for my present purposes. If Your Honor has further questions, I would be glad if you asked them. Your Honor may ask him questions if there is something I haven't covered.

THE COURT: No, I just don't like to cut in or interfere with your train of thought. I just wanted to know if you had fully completed your cross-examination as to claim 42.

MR. LYMAN: I completed it as far as relates to the question of infringement of the patent, Your Honor. I have not completed it as far as relates to the question of validity.

THE COURT: All right.

MR. LYMAN: But there may be something that I have overlooked.

THE COURT: No, I don't know that there is, but I say I just want to be sure now that —.

MR. LYMAN: —I shall have to pass that over, because I don't know at the moment.

THE COURT: All right.

MR. LYMAN: Would Your Honor be kind enough to look either at the Hoyt patent drawing, Figure 2, or at this enlarged reproduction of it, which Dr. Greene put in last week?

THE COURT: Yes.

MR. LYMAN: Just let us compare the defendant's mechanism with the mechanism of the Hoyt patent.

By Mr. Lyman:

XQ149 Now, you point out that in the defendant's machine this part marked "A" is driven yieldingly from the cam. A. Yes, sir.

XQ150 That is, there is a spring interposed between it and the cam? A. Yes, sir.

XQ151 That is true also with reference to the part marked 188 in the Hoyt patent, isn't it? A. The part 188, called the "equalizer", is a similar part for the same purpose.

XQ152 Yes; and there is the same spring interposed between the cam and that operating member, as we call it in Hoyt, as there is interposed between the part marked "A" in Plaintiff's Exhibit 34? A. There are two springs in that and one in Hoyt. The principle of the operation is the same.

XQ153 In Hoyt we have this member 188, which corresponds to defendant's member "A" of Plaintiff's Exhibit 34, connected to two rack-bars. A. That is correct.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ154 Just like the rack-bars of Hoyt? A. Yes, sir.

XQ155 And those rack-bars operate bell crank levers on each side? A. That is correct, sir.

XQ156 Like those of the Hoyt patent? A. Yes, sir.

XQ157 And connected, pivoted to the ends of these bell crank levers there are pressure members? A. Yes.

XQ158 171 in Hoyt and the one which I indicate in pencil in the defendant's machine? A. Yes, sir.

XQ159 Same system on both sides? A. That is correct, yes, sir.

XQ160 And we have in addition, in the Hoyt patent, these links 158 on each side, which are the members to which I point on Plaintiff's Exhibit 34, representing defendant's machine? A. Yes.

XQ161 Just the same? A. Yes, sir.

XQ162 And those links 158 in the Hoyt patent carry cylinders— A. —Might I just add one word there, Mr. Lyman?

XQ163 Yes. A. That in the Hoyt patent, Your Honor, there is—this doesn't bear on the point—but there is an adjustment lengthwise of the member 158 so that if you wish to use it on a larger shoe you can move it out and make it longer. And then, also, there are more swinging motions in the Hoyt patent than in the defendant's machine. There is, however, this link in between, which is connected to the end of the swinging lever, in the defendant's machine. There is that slight difference, however, of a greater multiplicity of motion and adjustment in Hoyt to care for the things which Hoyt was looking for.

XQ164 We have in the Hoyt patent these members to which I point, which are called in the patent "loosely mounted arms carried on the support for the heel seat band". Is that right? A. Those members, 240, and 242, are in the Hoyt patent with no set-screws, and are freely mounted.

XQ165 And here we find the same parts, the same swinging arms in the parts which I indicate upon the drawing of defendant's construction? A. With set-screws.

XQ166 In that respect they are like Plaintiff's Model D, is that right? A. The plaintiff's Model D has set-screws on it and also has springs within the members 210, 171 and 174.

Testimony of Arthur M. Greene, Jr. (Resumed).

THE COURT: Those are the set-screws about which we had early controversy as not being included in the second McFeely patent.

MR. LYMAN: They questioned it.

THE COURT: Otherwise known as the loosely mounted arms.

MR. LYMAN: Yes.

THE COURT: And then Mr. McNulty disassembled it.

MR. LYMAN: That is right.

By Mr. Lyman:

XQ167 These pivoted arms of the Hoyt patent, 240,242, are pressed inwardly by plungers, spring-pressed plungers in these elements 248? A. 232. There are plungers in there that are forced out by springs. These are mounted on a yoke-piece, 236.

XQ168 All the same in defendant's construction? A. Oh, no; quite different.

XQ169 Why? A. Well, in the first place the drawing for some reason has been made with the band up against the back stop, with no shoe in there, which in my opinion rarely would occur unless it was forced back and a picture taken. The set-screws are in, which are not in the patent at all, and of course since six or eight months there have been no springs within the housings.

XQ170 So you have been informed? A. I have been informed and also have tried the machines and know that they are not there.

THE COURT: Mr. Toulmin, I wonder at this point if we could ask a question. Your position on the Hoyt patent is you say in your machine the springs are not infringing because you removed the springs; and the front part, the open part of the heel band, that has been anticipated by other patents. Is that your position?

MR. TOULMIN: Roughly, that is, Your Honor; but may I restate it in patent lawyers' language? I will try to make it as plain as I can. We have a bad habit of making things very technical. Our position is simply this, Your Honor, that so far as the outer ends of the heel band are concerned—

THE COURT: —The unyielding member.

MR. TOULMIN: The unyielding member, that we have a yielding member because we have the big springs in there that cause the whole structure to yield.

THE COURT: Of course, that is in the central part, the center of the rack.

MR. TOULMIN: That is right.

Testimony of Arthur M. Greene, Jr. (Resumed).

MR. LYMAN: The same as in the patent.

MR. TOULMIN: I want to finish my statement, so I can make it perfectly clear.

THE COURT: All right.

MR. TOULMIN: That if Your Honor should construe the claim as meaning that it did not mean that spring but it had to be springs out at the outer ends to avoid infringement, then I would say the construction is fully met by one or more of these patents in the prior art.

Now let me take up the question about the set-screw, if I may. Our position is, as to the set-screw being in there, that the arms are no longer loose because the set-screw prevents their movement. That is the second point. The third point has to do with the bight spring, which Your Honor knows about. Our proof in connection with the absence of bight springs since the suit was brought, and the comparative operation with and without it, goes to the issue that there was no utility in the claim because you may go along without an essential element.

THE COURT: And you are not infringing.

MR. TOULMIN: You are not infringing if you don't have the bight springs.

THE COURT: That was my suggestion.

MR. TOULMIN: That crystalizes the issue that you have to decide.

THE COURT: Yes.

By Mr. Lyman:

XQ171 First let us deal with these bight springs. In the defendant's machine as it existed until recently the testimony is that there were springs on these members which hold these swinging arms inwardly against the band, is that right? A. I think that is right, yes.

XQ172 In the Hoyt patent the situation is that you have these loosely pivoted arms, marked 240, 242, which are mounted on this support for the back-stop of the band. They are free to swing, like my arms (demonstrating). A. Yes, sir.

XQ173 And that these members 248, these spring-pressed plungers 248 and 250, are always pushing them in, tending to urge these arms inwardly toward the heel band. That is the arrangement? A. Yes.

XQ174 That was the arrangement in the defendant's machine until they removed the bight springs? A. No, they had set-screws in there which limit that and make the two members not freely mounted.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ175 Forget those set-screws for a moment. Supposing those set-screws were out and the bight springs in; then the arrangement would be the same as shown there (indicating)? A. That is, if you have arranged it as Hoyt, you have arranged it as Hoyt.

XQ176 You say that these set-screws here serve some purpose. What is that purpose? A. It is to reduce, in my opinion—I do not know what the builder of the machine used them for, Mr. Lyman, but in my opinion it is to cut away the freely moving part of those two levers.

XQ177 Well, it simply prevents them from moving too far forward? A. Yes, sir.

XQ178 (Demonstrating): As if my arms were those arms and as if you put a stop which prevented my arms from going further forward than a certain amount, leaving them swinging up to that amount and pressed from behind by plungers to keep them up as far as the stop would let them go; is that correct? A. If your arms were free to move backward as well as forward, set-screws would do as you have explained.

XQ179 And these arms in defendant's machine, so long as the bight springs were present, had that capability of moving backward?

THE COURT: I wonder if we couldn't reach it another way. While those arms are loosely mounted and they are being under pressure from the rear, of these springs, if those set-screws just kind of counteract the effect of the spring?

MR. LYMAN: Prevent the spring, Your Honor, from forcing them too far.

THE COURT: Too far ahead, yes.

MR. LYMAN: Limiting them. That is all there is to it.

A. Your Honor will see, if that is the case, the springs can no longer press themselves against the band, as the patent claim calls for, and therefore those screws would invalidate certain of the claims of the patent.

THE COURT: Would they?

XQ180 Why do you say that the set-screws prevent those members from pressing against the band?

THE COURT: I think if we use this model here we might see it. (After court and counsel had Plaintiff's Exhibit 8-A before them): What I had in mind here was this spring here (indicating), whose purpose it is to press this.

A. Your Honor, if these screws are pressed inward it will force the two arms back, and therefore if the bight-

ening of the band on this position, not only in defendant's but even this one, if the tightening of the band guided that as it pushes forward, normally they are pressed toward the band. These do not press toward the band; the band presses toward them and pushes them back. If it is in that position you see, they just stand there and don't come back, and that is limited by this band.

THE COURT: I understand that is under power.

A. And if this is screwed in, Your Honor, it is pushed back from the band and no longer performs its function until the band has pressed against it. Normally it does not press against the band.

THE COURT: But the claim of the patent refers to "loosely mounted arms".

A. Yes, sir.

THE COURT: And it is your contention that these screws—

A. —They can be loosened.

THE COURT: But they are in there now and they swing.

A. Yes, because there is nothing behind it.

By Mr. Lyman:

XQ181 In the structure shown in the Hoyt patent we have by reason of the provision of these swinging arms and their spring-pressed plungers, which always tend to move them forward unless they are prevented by some stop, a resilient seat for the heel band when it is shifted in by power? A. If there is no stop such as the set-screws.

XQ182 But, Dr. Greene, the set-screws do not prevent the yield of those members rearwardly; they simply prevent their going too far forward. A. After the shoe is forced into the heel band by a draw-in mechanism of some kind, yes, the springs and their cooperating parts do press against the band; but until that occurs with these stops in there that is limited in amount; without the stops in there they would go in still further and come against the part of the support which is numbered 234 in the Hoyt patent.

XQ183 Do you know how these set-screws are adjusted in the defendant's machine? A. No, sir, I do not.

THE COURT: It is your position, just reduced to its lowest analysis, that these two set-screws nullify that claim?

A. Not entirely, Your Honor. You have got to put a solid part in there. Yes, they nullify the claim be-

cause normally the set-screw throws it back, upon which the claim was for.

THE COURT: It is your position that those two set-screws here nullify that claim?

A. Nullify that part of the claim.

THE COURT: As to the loosely mounted arms?

A. Yes, sir.

At this point a short recess was taken, after which Dr. Greene returned to the witness stand and the trial proceeded as follows:

By Mr. Lyman:

XQ184 Professor, you said that, with reference to the drawing Plaintiff's Exhibit 34, as you had seen the defendant's machine the heel band didn't abut up against the back-stop which is marked "B". A. Unless it was pushed there.

XQ185 It would be pushed there as soon as the shoe was put in there, wouldn't it? A. That is right.

XQ186 So this drawing Plaintiff's Exhibit 34 represents the parts of defendant's machine as they would be when a shoe was put in position? A. That is correct, yes, sir.

XQ187 With reference to that stop which appears on defendant's machine— A. —Isn't it on that lower picture?

XQ188 No, that is not the one I am speaking of. A. I know what you mean.

XQ189 I am speaking now about the stop which in defendant's machine limits the extent of the vertical motion of the hold-down and which can be seen in the Photograph A of Plaintiff's Exhibit 29 at the point where I put my pencil, just behind that spring which I point to. You understand what I mean? A. Yes, sir. There is a better photograph which you have, I think, which has not been mounted.

XQ190 Will you show me that? (After examining photographs in evidence): Maybe that is the only one that you have but I was reasonably sure you had taken a large one of that.

XQ191 Do you find any photograph that shows that more clearly? A. It was the other side of the machine, which shows the serial number, and I thought that was the one that I had in mind.

XQ192 Which one did you have in mind? A. I thought you had the stop which is fastened beneath a

bolt which holds a spring that pulls the arm on the hold-down mechanism against the cam face.

XQ193 Will you draw a lead-line to that stop and mark it with the letter "X" on Photograph A in Plaintiff's Exhibit 29? A. (Marking exhibit): I have so marked it on the part "A" of Plaintiff's Exhibit 29.

XQ194 Will you mark the same stop on Photograph C of this same exhibit with the same letter? A. (Witness marked exhibit).

XQ195 An operator of a machine could easily enough, by simply loosening the screw which attaches this stop to the frame of the machine and putting in a little shim, change the length of that stop, could he not? A. It could be done.

THE COURT: Is that your theory as to that?

MR. LYMAN: It would permit, Your Honor—in the machine as we have it here in the hall no upwipe is possible for the reason that the cam does not contain the proper motion to give an upwipe to depress the hold-down and the shoe until at a time before and a time after the heel band is clamped about the shoe.

THE COURT: But with this addition it would permit an upwiping; is that the theory?

MR. LYMAN: No; in that machine it would not.

THE COURT: I say, with this suggestion you are talking about it would permit it?

MR. LYMAN: No, Your Honor. In the defendant's machine we have in the hall you could not get an upwipe because the cam does not provide for a clamping of the heel band about the shoe until after the hold-down is depressed; but this claim, one of the elements of this claim is an adjustment for the throw, the vertical movement of the hold-down. We do not think the claim is limited to upwipe, but that has been talked about, whether there was an adjustable stop there or not, as you know. I am bringing out the fact that if, instead of the adjustable stop shown in the Moenus catalogue and which Mr. Ryan testified was present in defendant's machine when he saw it with this stop that they have now in there, an operator could obtain the same adjustment if he just loosened up that screw and put in a little shim. That is all I am inquiring about now.

By Mr. Lyman:

XQ196 I would like to turn to the claims of the Hoyt patent which are involved in this case, claim 19, first, and let us again get your position as to why that

claim is not infringed in the defendant's machine. If I understand your position, the reason why you say that claim is not embodied in defendant's machine is because in defendant's machine there are not the unyielding connections between the operating member and the band which the claim calls for. Am I correct? A. That is my belief, and I would like to explain why.

XQ197 Very good. Proceed. A. If the court please, on page 4 of this patent, beginning at line 123, we find the following words—and I will call attention to the picture in Exhibit E of the defendant at the extreme right of that list, so you might follow the numbers: "The arms 158 and 160 are fulcrumed on the head 4 at 170 and 172 respectively and, as shown, are operated by links 171 and 174 from bell crank levers 176 and 178 pivoted at 180 and 182 to the head 4." That is one sentence. Then the next sentence: "Each of the bell crank levers 176 and 178 is formed with a toothed segmental portion, the segments being arranged to mesh with rack bars 184 and 186 slidably mounted in the head 4. The arms 158 and 160 are moved synchronously toward and from the work to cause the band 140 to clamp or release the work by mechanism comprising an equalizer 188 having its ends received in recesses in the ends of the rack bars 184 and 186 respectively and carried by a head 190 on a rod 192 sleeved into a housing 194." That is, this mechanism which does the work goes directly from the band up through the housing and before it can get into the housing the spring is interposed, so that sentence includes the spring in it, and because of that—

THE COURT: —It is not unyielding.

A. It is yielding when you get into that, yes, sir. That is, the claim "unyielding", if it means anything, is shown in this art by this long list of pictures.

THE COURT: I know, but right now on this "unyielding".

A. I can't see where the "unyielding" comes in. The only place that "operated" and "unyielding" come together is in the little pin which connects 170 and 171. That is the only unyielding part which is operated, according to these specifications, and when you come to the next sentence you go a little further and then the final one says they "are moved synchronously toward and from the work to cause the band 140 to release the work by mechanism comprising". The equalizer is there but it goes right back to the housing 194.

THE COURT: And it is your position that because they all work together and depend on this spring that it is not unyielding.

A. That is right, sir, and that the unyielding part of this machine is found in practically all of the patents which have been cited in this case, in the prior art.

XQ198 I am not asking about the prior art at this time. You have already said, Professor, that insofar as that spring is concerned which is interposed between the cam and this member 188 of the patent or the corresponding member "A" of defendant's machine, the defendant's machine and the Hoyt patent are alike; or is that spring interposed between the member and the cam in both cases? A. Yes, sir.

XQ199 Then your argument that the defendant hasn't unyielding connections is also an argument that there are not unyielding connections in the structure of the Hoyt patent itself?

MR. TOULMIN: We object.

THE COURT: (After question was read): You may answer that "Yes" or "No" and explain.

MR. TOULMIN: I was referring to the word "argument", Your Honor.

XQ200 Your position, I could just as well say. A. (After question was read): Yes, that is my position. There are yielding connections between the housing 194 recited in this description of the action of the Hoyt patent and the bands.

XQ201 You will notice that the claim speaks of an "operating member", claim 19, and unyielding connections between that member and the band for forcing the ends of the band against—two ends of the band that means—against the shoe. If you will look at the drawing of the Hoyt patent, Figure 2, if we regard the member 188 as the "operating member" that the patent is talking about, that is a correct description of what the patent shows. A. If that could be the operating member as it is, could be so-called in the prior art patents.

XQ202 I don't ask about the prior art patents. Please divorce your thought from the prior art patents for a moment. A. I can't.

THE COURT: The question is whether that is unyielding in effect.

A. Your Honor, if you will look at the picture, between the equalizer and the band the members are of fixed length and "unyielding" would be the word to be used there. There is no question of that.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ203 That is also true in the defendant's machine if we regard this part which you have marked with the letter "A" on Plaintiff's Exhibit 34 as an operating member? A. *An* operating member—not *the* operating member but *an* operating member.

XQ204 An operating member. Then there are in the defendant's machine the unyielding connections from this member "A" which operates the pressing members at the right and left at the forward ends of the band. A. That is evident from the drawings.

XQ205 You say that it is improper to call that member 188 of the patent or the member "A" of Plaintiff's Exhibit 34 showing defendant's machine, an operating member? A. I do, because the patent doesn't call it that. The patent definitely says it is an equalizer, to act as a singletree on the front of a wagon with a pair of horses,—just the same thing.

XQ206 It is a link in the chain of power connections where the connections begin to divide, those on the right-hand going to the right-hand of the band and those on the left-hand going to the left-hand of the band: that is true, isn't it? A. That is true.

XQ207 That is true in defendant's apparatus as well as in the plaintiff's? A. Yes.

XQ208 Do you or do you not regard that expression "an operating member" as a proper designation of the member 188 of the Hoyt patent? A. It is improper.

XQ209 It is improper as a designation of the member "A" of defendant's machine? A. Yes, sir.

XQ210 Did you prepare the drawings that have been produced in evidence? A. I beg pardon?

XQ211 Did you prepare these colored drawings that have been produced in evidence? A. I worked on them.

XQ212 Who did the coloring of them? A. I did some of it.

XQ213 Who else worked on it? A. Well, I imagine Mr. Kath and Mr. Williams and Captain Greer. We all worked together.

XQ214 Who is Mr. Kath? A. Mr. Kath is Mr. Bruno Kath, of the Moenus Company.

XQ215 Who is here in the room? A. He is in the room.

XQ216 You all worked on these drawings? A. Yes.

XQ217 Who put on the legends? A. The legends? I don't know.

XQ218 You did not? A. No, sir, I did not.

XQ219 You are not responsible for them? A. No, sir.

XQ220 You don't vouch for them? A. I don't doubt they are right. I will be very glad to have you ask me about any of them.

XQ221 I am going to call your attention to Defendant's Exhibit S which you produced, representing the Snow Patent 946,708. I call your attention to the words "Operating Rod or Band 24". A. Yes, sir.

XQ222 What does that member do? A. That is the rod which is connected to the unyielding spring, and is nicely shown in the patent in suit.

XQ223 Not in the patent in suit. A. I beg your pardon; in the prior art mentioned.

XQ224 You mean in the Snow patent? A. The Snow patent. It is better seen on another figure. It is well seen, Your Honor, in Figure 2 of the patent, which shows the spring coming right next to that member, and that bar is the bar—is described in the patent as a bar which, through the spring, operates from the cam at the front to move the crossbar or equalizer going across the front.

XQ225 And that operating rod 24 in the patent is connected by a spring, of which you see a trace, to a foot treadle. A. Yes, or a cam.

XQ226 Or a cam. So that interposed between this operating rod or band 24 and the source of power, which is the treadle or a cam, there is a spring? A. That is right, sir.

XQ227 Just the same as in the defendant's machine and the Hoyt patent? A. Yes, sir.

XQ228 And you call that an operating bar? A. Because if you will look in the patent—I am not sure, but if you look at the patent I think it is probably called an operating bar.

XQ229 Is it a proper description of it? A. If you wish to call it so, yes.

XQ230 I am asking you. A. If you wish to call it so; and if the patent calls it that I would say it is.

XQ231 See if the patent calls it that, 24. A. (After examining patent): It calls it a "rod".

XQ232 It doesn't call it an "operating member". A. I don't find it in the patent.

XQ233 But you have called it in your drawing an operating member and it performs exactly the same function as being the link in the chain of mechanism from the initial source of power, the treadle or cam,

and the heel band presser members, as the link, as the member "A" of defendant's machine or 188 of the patent? A. You see, Mr. Lyman—

XQ234 —Can you answer "Yes" to that? A. (After question was read): The answer is that no, it is not.

XQ235 Not the same? A. No.

XQ236 Not the same in defendant's machine? A. No.

XQ237 Why not? A. Because there is an equalizer which comes beyond that, which is the same as this equalizer. That is, if you will notice in this exhibit, in front here there is this cross member, which is called "Side Pressure Equalizing Yoke", which takes the place of the equalizer on this figure (indicating).

XQ238 So you say it is proper to call this band 24 of the Snow patent, this rod of the Snow patent an operating member but it is improper to call the element 188 of Hoyt or the element "A" of defendant's machine, as shown in Plaintiff's Exhibit 34, an operating member? A. It is not right to call it that if Mr. Hoyt does not call it that in his patent.

XQ239 That is the reason you say it isn't right? A. I also say it isn't right because it does not do the operating. Nor is it the complete operating bar. It is part of the system.

XQ240 And yet there is a spring back of it? A. There is a spring back of it, yes, sir.

XQ241 I call your attention to your illustration, Exhibit A-1, of the MacLeod patent 1,030,519.

THE COURT: It is the same principle—"operating plunger" that it talks about.

XQ242 Yes. There is a member you call an "operating plunger" in that machine. A. Yes.

XQ243 Is it proper to call that an "operating plunger"? A. It is called an "operating plunger" on that drawing. In the specification it is called "a plunger 31".

XQ244 Well then, I suggest that you draw a circle around this word "operating" on your Exhibit S-1. Don't obliterate it but draw a line around it and write in your handwriting "Not correct". A. Your Honor—

MR. TOULMIN: —I object, Your Honor.

A. —I would not say that this is not correct. It is operating, and to say it is not correct would be not to tell the truth.

THE COURT: Of course, the point about it is it is just by way of comparison, going to the weight of your

testimony, since you take the position that 188 isn't an operating member, and on these other exhibits of the defendant they are described as operating rods for bands, and so on, and apparently are just simply links in a power chain. That is all they are.

XQ245 I won't ask you to read anything about it. A. I will be very glad to draw the circle. You want it on each of these?

XQ246 You say it is correct on— A. —No, I did not say it is correct.

XQ247 You did not say it is correct? A. No. You asked me if it was the same as the operating member of Hoyt.

XQ248 You think it is erroneous as an observation on Exhibit S. If you think it is erroneous, draw a line around it on Exhibit S. A. I am marking this with a circle, as in the other one, as indicating the word "operating" refers to part of the system which does the operating.

XQ249 Here is another drawing which you have submitted, Exhibit T, representing the Plant patent, 958,280, where you have made another similar mistake, haven't you, Professor? A. In that sense I should say it was. In this particular one there is the same arrangement of the spring going down to a cam-moved mechanism.

XQ250 So you had better draw a circle around that in explanation. A. I did so draw it.

XQ251 We have now, I think, dealt with the only reason that you have advanced as to why claim 19 of Hoyt is not infringed. Will you now turn to claim 21 of Hoyt and see if I understand your position as to why claim 21 of Hoyt is not infringed? Am I correct in my understanding that the only reason why you think that claim 21 of Hoyt was not infringed is because that same old clip that we have spoken about so many times has been sawed off in defendant's machine? A. Before answering your question might I go back to claim 19, because you did not mention all of the elements which I said we did not have.

XQ252 Go ahead. A. The last part is "separate fielding means operating on each side of the band adjacent to the bight of the band to press such portions of the band against the shoe". That part should be included as one of the elements which we do not have.

XQ253 You don't think defendant's machine has that element of claim 19? A. No, sir.

XQ254 Why not? A. Because there are not separate yielding means on each side of the band. They are with bars inside of the housings and the set-screws.

XQ255 You mean that with the bight springs removed they don't infringe it? A. Yes, with the defendant's machine as brought before the court.

XQ256 With the bight springs removed. Let me hear why you say claim 21 in not infringed by defendant, and I will repeat the question I put before, in substance. Is it my understanding the reason why you say claim 21 is not infringed is because that clip attached to the heel band has been cut off as in defendant's machine? A. That is the reason for the objection to this element, or rather, the statement that it is not in the defendant's machine, because the supporting part of the band which is mentioned in the next part of the claim refers to the back support and not the side support. So that by cutting the clip off, or having the wing-screw drop off and remain off this means of supporting the bands, and described on page 4, beginning at line 72: "The clamping band 140 is composed of leather or other suitable flexible material. In order to afford support for the band at its rear end or, in other words, at the bight of the band, a clip 142 is riveted to the band at such point. The clip 142 is in turn carried by a stud shaft or post 144 loosely mounted in a carrier 146 slidable in a guideway on the head 4. Downward movement of the post 144 is limited by an enlarged part 145. In order to permit the clamping band 140 to be appropriately positioned for operation on shoes of varying sizes, the carrier 146 is adjustably secured to the head 4."

XQ257 I am not asking for a discussion, Professor. I just asked you a simple question, which was whether the reason why you say that claim 21 is not infringed is that that clip has been cut off of defendant's machine. A. That is correct.

XQ258 That is all, then. I heard your explanation before. I wish you would identify, by the way, then in one of these drawings the clip that has been cut off. You will see it in one of these photographs. In Photograph B of Plaintiff's Exhibit 32 I think it would be well shown. A. The clip which has been cut off—do you wish me to mark it?

XQ259 Yes. Mark it with a letter. A. It is shown in two of these sections, one which I will call "Y" on B of Plaintiff's exhibit 32; and then in the "D" part of this exhibit I will also call it "Y". My pen slipped and made the "Y" into an "X" when I started.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ260 Will you, by the way, mark with the letter "X" on Photograph B of Exhibit 32 the place where the wing screw would be screwed into if the clip were not removed? A. I have so marked it on Section B of Exhibit 32.

MR. LYMAN: I guess that is plain enough, Your Honor.

THE COURT: Oh, yes.

By Mr. Lyman:

XQ261 Can you tell me, Professor, what the color scheme that you have followed in making these numerous drawings is? A. Yes. We have endeavored to use green for the wiper and its associated parts; orange for the heel band; red for the support; and purple for pressure members or mechanism.

MR. TOULMIN: Mr Lyman, I think he neglected brown for the tackers.

XQ262 Mr. Toulmin says you neglected the tackers. A. There is a blue shown on the larger exhibits, Your Honor. There is brown used for the tackers, there is yellow used for the hold-back and operating mechanism for the jack, and the hold-down and its associated parts, blue. I think I have covered those now.

XQ263 Will you tell me if you find any single patent in the prior art which shows all the elements of claim 6 of McFeely? A. I find the early McFeely, 1,129,881; and by the drawing and specification the early patent to Copeland, 244,714. If we mean by "cooperation" the rigid attachment of the wiper and tacker but in the narrow interpretation, the exact—let me get that. If we mean by actual connection "cooperation" then Copeland. If, however, "cooperation" between the two means the relative movement which is in the patent in suit, then McFeely 1,129,881 has such arrangment. So I think possibly the McFeely 1,129,881 is the best patent.

XQ264 Those are the only two which in your view embody all the elements of claim 6? A. Well, I feel that Keyes, 1,023,854, might be said to have all of claim 6.

XQ265 Tell me whether you find in the prior art any single patent which discloses all the ellements of claim 85 of the McFeely patent in suit, if you please. A. The McFeely patent 1,129,881 as interpreted by the plaintiff has all the elements of claim 85.

XQ266 Any other? A. Keyes, possibly, and Copeland, possibly.

XQ267 Take claim 23, if you please, of McFeely. Let us assume for the moment that it covers the defendant's machine with that clip in use and the wing-screw in use. Do you find any patent that shows the elements of that claim, reading it in that way? A. I believe that Brock, 1,188,616 does so.

XQ268 Brock, 1,188,616? A. With the wing screw in position.

XQ269 Supposing it reads upon Defandant's machine as it is now mutilated by cutting off the clip; are there any other patents than that same Brock patent that anticipate it? A. McFeely 1,129,881 meets all the elements of claim 23 as interpreted by the plaintiff in this case.

XQ270 Turn to claim 91, please, and name again, tell me whether you find any single patent of the prior art that shows all the elements required by claim 91 of McFeely. A. Is that the end of the question?

XQ271 Yes, sir. A. I find that the Brock patent 1,188,616, and the McFeely patent 1,129,881, have all of these elements. The Brock patent 601,935, can also be said to have them, as well as the Brock patent 1,002,818, and Cavanagh, 1,130,142.

XQ272 Does that answer apply whether or not the claim is interpreted as limited to a machine in which that clip is present and in use? A. Without looking over all of these patents, Mr. Lyman, I would say that outside of the McFeely patent 1,129,881, the others have the clip or the equivalent of it. If you wish me to, I will take the time to look at the others, but I think they all have it.

XQ273 I think it is unnecessary now. Do you find in the prior art any single patent which shows all the elements of claim 42 of McFeely? A. I do not in one patent find all of the elements.

XQ274 Do you find any single patent of the prior art which includes all the elements of Hoyt's claim 19? A. I find the Snow patent, 946,708, with all of the elements of claim 19; I find the McFeely patent 1,558,737, to have the elements; I find Figure 19 of the McFeely patent 1,129,881 to have the elements.

XQ275 That is, each of those references you say shows all of the elements that are contained in claim 19 of Hoyt? A. Yes.

XQ276 Do you find any single prior art patent that shows all the elements included in the combination covered by claim 21 of Hoyt? A. I find the Pym patent, 1,368,968, to have all of the elements. I find the McFeely

patent, 1,558,737, to have the elements in equivalent form. I find the McFeely, 1,129,881, Figure 19, I believe would have the elements.

MR. LYMAN: If Your Honor please, the marks that the witness drew around these words, "Operating" in Exhibits S, T and A-1 are on my copies, and I should like to have him put them on the original exhibits.

A. Could I do that a little later?

THE COURT: We can do that later.

MR. LYMAN: All right, sir.

By Mr. Lyman:

XQ277 Many of these prior art patents relate to what is known as the "bed" type machine, lasters? A. Yes, sir.

XQ278 In which the operator has to manipulate various levers, hand levers, knee levers, do his wiping operations by hand, do his tacking operations by hand? A. Some of them are that way. There are one or two that are operated by a crank and connecting rod. I think one of the Snow patents shows that.

XQ279 That you would say would be a bed type machine, with a little power aid to do some of the operations? A. Yes.

XQ280 In the first place, I would like you to collect together all the patents that relate to that bed type machine and lay them to one side; for the present purposes, you can do it more easily, I think, by taking the exhibits here, and see what we have left after you are done. A. The Snow patent, 946,708, shows bed lasting. The Snow patent 701,442 shows bed lasting. The Lombard patent 542,445 shows bed lasting. The Eaton patent 596,323 shows bed lasting. The Brock patent 601,935 shows bed lasting. The Plant patent 958,280 has a hand-controlled wiper lever; the clamping part may be operated by power. It is primarily a lasting machine and is flat, and if "bed lasting" means complete operation by hand, it is not. If it means a flat bedded machine, it is.

XQ281 In general that Plant shows the same type we saw over at Krippendorf-Dittman's, where there is a power element— A. —I would like, if possible, to change the statement which I made about the Snow patent 946,708, which has a flat bed and has mechanical means for binding. We come to the Brock patent 1,002,818, which is associated with a later Brock patent, showing the clamping means to be operated by machinery. The wiping means are operated by hand. The laster is flat and if such a machine with certain power parts is bed lasting, this is bed lasting.

XQ282 Which Brock is that? A. 1,002,818. The Keyes patent 1,023,854 is not a bed laster. The MacLeod patent 1,030,519 is not complete and it is merely a clamping means which is moved by other parts, and it is flat; and if such a machine is to be called "bed lasting" this is bed lasting. The Bayard patent 1,068,843, which shows wiping means directly connected to tacking means and moving with these tacking means, as a unitary structure, is not a bed laster. The McFeely patent 1,129,881, is not a bed laster. The Cavanagh patent 1,130,142, is a bed lasting machine, and with power operation on the bar 62 it might be called a machine operating on the band, but if such is called a bed laster that might be so called. The Brothers patent 1,135,945 is not a bed laster. The Brock patent 1,188,616, which corresponds to an earlier one as far as action is concerned, is mechanically operated on the band, the wiper is hand-controlled, and if such a flat machine is a bed laster this is one. The Merrick patent 1,245,117, is not in the true sense of the word a bed laster in that it employs a number of other things. The Pym patent is a flat machine with operating parts and no tackers, and if such a flat machine operated by mechanically driven parts would be a bed laster, this is a bed laster. I think I have covered all of them, Mr. Lyman.

XQ283 The bed machine that we saw over at the Krippendorf Dittman factory had some power. A. What is that?

XQ284 The bed machine that we saw at the Krippendorf-Dittman factory had power means for operating the clamp, I think, didn't it, some power means connected with it? A. You mean on the bed laster?

XQ285 Yes. A. I think it did.

XQ286 But still that was a bed machine. Now what have we left here after you have taken away the bed type machines? A. They are all there together (referring to exhibits which witness had been using).

XQ287 I wanted you to separate them.

THE COURT: He can answer the question without referring to them.

A. The Bayard and the McFeely and the Keyes are definitely not, and also I would say that because the early Copeland, 244,714, a tacker and wiper may be operated by power, with adjustable means, I would include that very early patent of 1881 as one of the non-bed-lasters.

XQ288 All right. Take this Keyes patent 1,023,854; that machine is a special machine for driving two tacks

on opposite sides of a lasted shoe, isn't it? A. That is correct, two on each side.

XQ289 Two on each side of the lasted shoe? A. Yes.

XQ290 And the shoe has been lasted, the heel seat has been lasted prior to the time that it is presented to this machine; is that right? A. The picture shows it that way, yes, sir.

XQ291 Your Honor has that in mind (exhibiting to the court). That machine takes a shoe that has already been lasted and to which a welt has been applied, then puts in a couple of tacks on opposite sides of the insole? A. That is correct.

XQ292 The Bayard patent 1,068,843, that is a toe wiring device, isn't it, Professor? A. That is a toe lasting device shown here. The patent refers primarily to the front hand-driven tacker, and it works on the toe but, as Brock and a number of others say, the toe and the heel lasting are identical; and this is for a toe.

XQ293 Just a minute. Will you kindly look at your copy of the patent before you say it is a lasting device? It says it is a toe wiring device. A. I beg pardon?

XQ294 The patent describes it as a toe wiring device. A. That is correct but, as I said, Mr. Brock in his patents and Mr. Snow and Mr. Eaton all say it is the same.

XQ295 We are talking about this particular patent. This patent shows a special machine which is adapted to be attached to what is known as a "pulling over" machine, isn't it? It is an attachment for a "pulling over" machine. A. Well, it is an attachment for this machine which has the tacker and wiper attached to each other that go in, and this puts in two tacks in the front for the purpose of supporting a wire that is to go around and hold the upper against the channel lip.

XQ296 Is this correct? What this machine does is to drive an anchor tack on one side of the toe for anchoring a wire and then to drive another tack on the opposite side of the toe for anchoring the other end of the wire? A. The patent is directly connected to that but the patent specification definitely states that the thing which carries the back tackers—there are three of them shown—also carries the wipers. The direct claims —

XQ297 —If you will just confine yourself to answering my questions, Professor, I think we would get along a little faster? A. Yes, sir.

XQ298 The machine shown in this patent is a "pulling over" machine, isn't it? A. I am not sure about the name.

XQ299 Will you look at your copy of the patent, please? At the right of Fig. 1 is a hand device which pays out a wire. The operator attaches that wire to a tack that has been driven by this device, carries it around this loose upper material, and anchors the wire around the tack that has been driven on the other side by this device. A. I believe the wire is attached when the tack is driven.

XQ300 And this device that drives the tacks is a hand-manipulated device. The operator moves these handles 34 between his fingers and jiggles it around and brings it up to the machine and then jiggles the other one around by hand the same way. A. That is, he does this front tacking with a wiper attached to the tacker—the front tacker I am referring to now—by hand. That is correct.

XQ301 Have we anything left to talk about except Copeland and McFeely? A. That is for you to say, sir.

XQ302 I want to know. We have discarded the bed machines and have now taken up Keyes and Bayard, which you have not said were bed machines. There is another one, Merrick, 1,245,117. Did you speak of that? A. I said that the Merrick machine was not a bed laster because of the other functions which it had to perform. It has in detail the method of varying the amount of motion of a hold-down and it also has upwiping, with which we are not now concerned; but the principal purpose of this patent was to show the stop for limiting the amount of motion, not the position but the amount of the hold-down, and also to show upwiping.

XQ303 All right. Since the upwiping claims are out of the case we will lay that aside. Now I have a note that you spoke of Brothers patent 1,135,945, and produced a drawing on that. A. Yes.

XQ304 That machine there is a combination of a "pulling over" machine and a manual device for manipulating a wire, a toe wire; is that correct? A. The machine has an adjustable wiper for predeterminately adjusting the wiper to the shape which is to be wiped by the hand lever 90.

XQ305 That is the reason why you referred to that patent? A. Yes, sir.

XQ306 Another one which has been produced in evidence is Stiggins, 1,182,630. I don't know whether you produced any picture of that or not, but that is merely a work support for use in a hand method lasting, isn't it? A. That is a special machine that has a special

elliptical motion at the top and it has the band forced in by side members, side members which apply pressure above the bottom, and it can be adjusted to right and left.

XQ307 It is a work support for hand method lasting? A. Yes, it is operated by hand.

XQ308 Now the McFeely patent 1,135,958 just shows a form of "pulling over" machine; is that correct? A. Yes.

XQ309 That is a "pulling over" machine? A. I don't think I described that.

XQ310 I don't think you did either, but it is among the patents that were included in that book. A. I don't think I did.

XQ311 There remain the Copeland patent of 1881 and the McFeely patent 1,129,881, upon which the present patent, the patent in issue, purports to be an improvement. That is correct? A. Yes.

XQ312 With the exception of the Copeland patent and that early McFeely patent 1,129,881, do you find anywhere in all this art any automatic laster, any automatic heel seat laster? A. May I ask what you mean by "automatic"?

XQ313 Well, I mean a machine such as is shown in this McFeely patent, in which the operator presents a shoe to the machine, the machine does the work. A. He has to adjust it first, though.

XQ314 Yes. A. He has to first adjust it.

XQ315 Oh, yes. A. And the early McFeely would do that. I believe—I have no evidence, of course, except from the patent drawing of Bayard, which is only a fragment of the remaining part—I think that might be the same thing.

XQ316 You think Bayard would? A. Yes. Not the part described in the patent but the part described in the patent picture of 1,068,843, in which at this late date of 1911, with so much prior art in front of Mr. Bayard before he died, I think there might be in that. There is no word in the patent that says it except it states that the wipers and tackers 8 work together.

XQ317 I think we will dismiss the thought that that shows an automatic heel seat laster unless you find something in the patent to indicate that it does. A. The bed lasters are all automatic. After you once get them set you then push the treadle, you pull a handle, and the parts are so arranged that they do the work which you want to do. The court saw the various adjustments to change the—

Testimony of Arthur M. Greene, Jr. (Resumed).

THE COURT: —But that isn't automatic, though, is it?

A. So far as the action is, Your Honor. You move your handle instead of moving by machine. You set it to do the work and then you do it. If it is machine driven—

THE COURT: —No, I think in the sense that is meant here that after the wipers are held in place these tacks are driven—after it it is wiped over and held in place the tacks are driven by hand.

XQ318 Yes. A. The tacker and wiper.

XQ319 Yes, by an automatic heel seat laster I mean a machine which will, when the operator presents it to the machine it will automatically take charge and do the wiping and do the tacking and present you with a heel seat that is lasted. Do you find anything in the prior art, anything that purports to do that, except the early McFeely patent 1,129,881, and you say we have the Copeland patent. A. And Copeland patent. If you mean by "automatic" machine-driven, I find no such thing.

MR. LYMAN: Now, Your Honor, it is one o'clock.

THE COURT: You will take some further time?

MR. LYMAN: Yes.

MR. TOULMIN: Your Honor, Professor Greene tells me he is under great embarrassment in that he has an appointment of many days' standing to attend a meeting in Princeton tomorrow. He has told Mr. Lyman also, I think. He would like very much to go home today. We have a number of witnesses to keep us busy tomorrow.

MR. LYMAN: I have told Dr. Greene that would be satisfactory to me.

THE COURT: There is no objection except of course we have other cases set and I am trying to keep those other lawyers satisfied. They have witnesses coming from Iowa. Have you any idea just when we will finish?

MR. TOULMIN: Your Honor, I think I will be all day tomorrow with these fact witnesses, dealing with the miscellaneous facts which I have to get one way or another, and then I am through except for redirect questions I would want of Dr. Greene, which will not be many.

THE COURT: Would you say you will finish on Wednesday?

MR. LYMAN: Your Honor, I don't know how much longer it is going to take for cross-examination and after that is done we shall have some rebuttal. Of course, I can't tell until I know what the other side is going to

have. By the way, Mr. Toulmin, have you obtained those bills for these wing screws, these invoices?

MR. TOULMIN: I have had a chance to talk with Mr. Williams this morning. He will bring them tomorrow and I will have the whole thing for you.

MR. LYMAN: May I ask if the fact testimony is going to relate to these defendant's machines?

MR. TOULMIN: Yes, partially. I have one witness on some miscellaneous matters.

MR. LYMAN: Defendant has told about doing away with the wing screws and doing away with the bight springs and sawing off the clips and I think there is no way we can contradict that testimony. It is probably true. At the same time I have no doubt really that that is the present condition of the machine. At the same time I feel that perhaps, in order that the whole case may be before us and we don't admit anything that isn't so, that it would be desirable for us to have someone go down and see those machines, and take advantage of this afternoon's recess, if we could.

MR. TOULMIN: You would have to look at our production line. I would certainly object to that.

THE COURT: What is that?

MR. TOULMIN: I say to look at our machines would require going into our factory to see what other equipment we have got there, which we do not want seen by these people because they are competitive in that sense.

MR. LYMAN: All right; if that is the objection, all right, sir.

MR. TOULMIN: I expect to put a witness on the witness stand who has inspected and tested the machines. If Your Honor wants to appoint someone to check the machines as an impartial party, I have no objection.

MR. LYMAN: There is no way we can see it without our trained experts.

MR. TOULMIN: The only way we could do is to take the machines off the production line and switch them. That is the only way we can do.

MR. LYMAN: I don't want to be in the position, Your Honor, of having given our United Shoe experts into that factory against their will.

THE COURT: Then we will recess until two o'clock and adjourn this case until tomorrow at ten o'clock.

Thereupon an adjournment was taken in accordance with the order of the court.

MORNING SESSION,

TUESDAY, JANUARY 24, 1939.

Court met pursuant to adjournment, counsel being present on behalf of both parties.
Thereupon,

Forrest L. Williams,

called as a witness on behalf of defendant, having been first duly sworn, testified as follows:

Examined by Mr. Toulmin:

Q1 State your full name. A. Forrest L. Williams.
Q2 Your residence? A. Portsmouth, Ohio.
Q3 Your occupation? A. Shoe manufacturer.
Q4 How long have you been engaged in that business? A. Since 1932.
Q5 With what company are you connected? A. The Williams Manufacturing Company.
Q6 What is your official position with the company? A. Secretary and treasurer.
Q7 And your general duties? A. My general duties are to head up the purchasing department, the office end of the business, and the legal matters which might be before us.
Q8 Did you have anything to do with purchasing the four machines which are the subject of the instant controversy? A. I did.
Q9 Will you tell the court about when it was those machines were purchased? A. Three of them were purchased in the fall of 1933 and one in the spring of 1934.
Q10 Are those machines different or alike? A. To all intents and purposes they are alike. The first three are identical and I think there have been one or two minor changes which were not used by us on the fourth machine, which came in some two or three months after the first three.
Q11 What change was that? In the last machine there is a little hole on the left of the machine as you face it, above this stop which has been discussed in the court room, into which has been drilled a screw hole. On the other machines that is not present.
Q12 To your knowledge, Mr. Williams, have any changes been made in these machines? A. No major changes. I think the clips have been filed off of the back of the heel band, but no other changes of importance with the possible exception of taking out certain springs.

Q13 While we are on the subject of the clips being sawed off, have you any idea, can you tell the court from memory about when that was done? A. As I recall, it was early in 1936.

Q14 Are you sure about that date? A. No, I am not sure about that. It was late in 1936; it was immediately following the visit of the attorneys for the United Shoe Machinery Corporation.

Q15 That visit was in December of 1936? A. December of 1936, so it was either the very last of 1936 or the very first of 1937. It was just a day or two after those gentlemen were there.

Q16 I will hand you a letter and ask you who wrote that letter dated January 18, 1937. A. I did.

Q17 And to whom is it addressed? A. Toulmin & Toulmin, Dayton, Ohio.

Q18 Was it actually mailed? A. Yes, sir.

Q19 Sent out in the ordinary course of business? A. Yes, sir.

MR. TOULMIN: We would like to have this letter offered in evidence as our Exhibit Y-1.

MR. LYMAN: (After examining letter): I don't really see the pertinence of a letter from this gentleman to his counsel, Your Honor.

THE COURT: I don't know what it is. (After examining letter): Is there an objection?

MR. LYMAN: Not really. It is a self-serving document.

THE COURT: If there is no objection—

MR. TOULMIN: —We shall connect it up, Your Honor, in connection with some of the authorities in our Court of Appeals as to this, but I am using it now to refresh his memory.

The letter so offered in evidence, dated January 18, 1937, from The Williams Manufacturing Company by F. L. Williams to Toulmin & Toulmin, is made part of this record as **Defendant's Exhibit Y-1-A.**

By Mr. Toulmin:

Q20 Now, Mr. Williams, from and after the date of January 18, 1937, which is the date of this letter you have just identified, will you tell us whether or not, to your knowledge, the heel bands have had any clips on the back of them? A. They have not.

Q21 Is it your intention at any time to restore these clips?

MR. LYMAN: I object to that, Your Honor.

MR. TOULMIN: That comes within the authorities to which I shall call Your Honor's attention. We have a right to ask if there is any intention to restore. If there is no intention stated, it is a vital and material fact in connection with the testimony.

THE COURT: The witness may answer.

MR. LYMAN: Your Honor will note my exception?

THE COURT: Yes.

A. (After last question was read): It is not.

By Mr. Toulmin:

Q22 Is it your intention at any time to restore the wing screws that hold the heel band to the back attachment?

MR. LYMAN: I make the same objection. I suppose it will be the same ruling.

THE COURT: Yes; the objection shall be overruled.

MR. LYMAN: Exception.

A. It is not.

Q23 Now, Mr. Williams, do you know anything about when the so-called wing screws dropped out of the machines. A. Well, the first that I recall about it was when Mr. Toulmin was there—I use this in order to refresh my memory—as I recall, in the summer some time of 1936, he noticed that the screws were out and commented upon it, and that was the first time that it came to my attention that they were not being used. Then I do recall definitely when the men were there from United that that machine, nor did any of the machines have screws in them at that time. And I am very certain when Mr. Toulmin was there that he called it to the attention of all of us that there were no screws or wing screws in position in any of the four machines.

Q24 What caused you to cut off or have cut off the clips at the back of the heel bands, Mr. Williams? A. Advice of counsel in an endeavor to eliminate any controversy which that particular item might have brought about.

Q25 Had you been sued at that time? A. No, sir.

Q26 At this inspection a machine was exhibited to Messrs. Ryan and Condon, is that correct? A. Yes, sir.

Q27 Were you present at that inspection? A. I was.

Q28 Did you have anything to do with the selection of the particular machine that was exhibited to these gentlemen? A. I did.

Q29 Did you give any instructions as to which one of the four machines was to be brought? A. I instructed them to take the machine nearest to the elevator, the one which would be easiest to bring into the inspection room.

Q30 At the time of that inspection can you tell us whether or not this so-called hold-down clip or bar was on the machine or not, or did you notice the one adjacent the hole in the casting? A. I am certain it was on just the same as this clip or bar out here, because the same clip or bar was on all four machines.

Q31 Was any question raised by these gentlemen as to that at that time? A. Not to my knowledge.

Q32 Mr. Ryan has testified that the serial number on that machine at that time had been obliterated. Will you state whether or not that is correct? A. I am certain that that is not correct.

Q33 To your knowledge have any of the serial numbers ever been obliterated on any one of these machines? A. They have not.

Q34 Have you made any recent check of the two machines that are remaining at Portsmouth, to ascertain this fact? A. I saw them Sunday and they have not been.

Q35 Is a machine at Portsmouth, or one of those machines the same machine that was shown to these gentlemen? A. It is.

Q36 Did you examine the serial number indentations on that machine to see if it had been changed in any way? A. I did.

Q37 What did you find? A. They had not been changed.

MR TOULMIN: If the court pleases, I desire to offer in evidence in conjunction with our Exhibit Y-1-A, which is the letter of Mr. Williams to myself, a letter I addressed to counsel for the plaintiff under date of January 21, 1937, the original of which they kindly produced this morning, in which the three principal paragraphs of this letter are quoted, as our Exhibit Y-1-B, in order that the court may have before it the record showing that, being advised this event had been accomplished of sawing off the clips at the back, that we so advised counsel prior to any suit being brought. If they will agree, we will have this copy which is attached to one of the pleadings in the case offered in evidence, instead of having the original from them for that purpose or having the reporter make a copy. It is immaterial except I notice in our office making the copy they got

January 20th instead of the 21st. Mr. Lyman's letter shows the 21st.

MR. LYMAN: There is no objection on the ground it is a copy, but I do object to its materiality in the case.

MR. TOULMIN: It comes within the authorities.

THE COURT: You may have an exception.

The copy of letter of January 21, 1937, from Mr. Toulmin to Mr. Lyman, so offered and admitted in evidence, is made part of this record as **Defendant's Exhibit Y-1-B.**

By Mr. Toulmin:

Q38 Since these changes were made, Mr. Williams, have you had any complaint that has come to you from the operators in the factory as to the operation of these machines? A. I have not.

Q39 Had you any complaint prior to the middle of 1936, when it was discovered these screws were off? A. No, sir.

Q40 Have you any records here produced as the result of the request of Mr. Lyman relative to the purchase of any additional wing screws in this connection? A. I have.

Q41 Will you please let me have those records, first stating whether the records came from the regular records of your company? A. They did.

Q42 Do these represent to the extent of your knowledge all the records on the subject? A. They do.

MR. TOULMIN: If the court please, we have here the original records. I have explained to Mr. Lyman our situation. They contain a great many other matters of confidence of our client that they don't want to exhibit to the other side. We are perfectly happy to have Mr. Lyman see them, however, and we will point out to him the parts that bear upon this particular part. But we don't want to have complete copies made of the documents or exhibit them to these commercial people.

THE COURT: May I suggest you dictate for the record what part of the exhibit you want?

MR. TOULMIN: Yes. Would you do that, Mr. Williams, because you can pick them out better than I can.

THE COURT: Has Mr. Lyman seen these?

MR. LYMAN: No.

MR. TOULMIN: Would you like to see these?

MR. LYMAN: I think you might let the witness state because I may not be able to make head or tail of it myself, and I desire to respect any confidential matters

there may be in those records. I don't intend to violate that.

A. The records were requested upon the nut 1108-B, of which 2 were shipped upon Moenus invoices of October 3, 1933, which was a list of parts which accompanied the original equipment. Then on March 28th, before Mr. Bender returned to Germany, he ordered additional parts. And on March 28th Moenus shipped to us 12 of these items. On October 21, 1935, at our request, they shipped us 12 additional nuts 1108-B. And the last ones were shipped at our request on December 3, 1935, by Moenus, a total of 4. In summary, there were 2 shipped on October 3, 1933; 12 on March 28, 1934; 12 on October 21, 1935; and 4 on December 3, 1935. Our files disclosed no additional parts of this serial number. I have checked the items with a red check mark.

MR. LYMAN: I don't want to take the time to look this over now, Your Honor. Perhaps I may do it at recess.

MR. TOULMIN: Mr. Williams will have them here.

MR. LYMAN: Yes.

By Mr. Toulmin:

Q43 Mr. Williams, do you know anything about the time when the so-called bight springs were removed from these four machines? A. Early in February of 1938, about a year ago.

Q44 Did you have anything to do with that? A. I did.

Q45 What did you have to do with it? A. I issued instructions that they be taken out after you had advised us to experiment to see if once taken out they worked satisfactorily, and we did find they worked satisfactorily and took the springs out.

Q46 Have they ever been restored? A. They have not.

Q47 Have you any intention of restoring them? A. No, sir.

MR. LYMAN: I object.

THE COURT: You may have an exception.

Q48 To whom did you give such instructions, if you please.

A. I gave them to Mr. Gialdini.

Q49 What position does he occupy in your plant? A. I guess he would have the title of chief engineer, if we had titles.

Q50 Does he have anything to do with the production of the plant, or anything of that sort? A. Yes, from an engineering standpoint.

Q51 Why didn't you show all four of the machines to the United Shoe representatives in December, 1936, when they made this visit? A. We felt it advisable to show the machines to United in our experimental room. We knew that all machines were identical. We took one to this experimental room. As I recall, they asked if the machines were all identical and we told them yes, and we did not desire to take the United representatives into our plant proper.

CROSS-EXAMINATION

By Mr. Lyman:

XQ1 Mr. Williams, in your affidavit filed in this case, speaking of these machines, you said: "All four machines were identical, per Moenus Catalogue No. 1224 and are so numbered." What catalogue did you refer to? A. I imagine that we referred to our regular catalogue which we have from Moenus, the big catalogue which represents the various machines that they offer.

XQ2 Have you that catalogue here? A. I have it at the hotel.

XQ3 I would like to see it some time during the day. A. I will be glad to let you do so.

MR. TOULMIN: We will bring it over at the noon recess, Mr. Lyman.

XQ4 Have you one of these wing screws that you can produce in court? A. I do not, no, sir.

XQ5 Where do the heel bands that you get come from? A. From Germany.

XQ6 Do they come with those clips sawed off? A. I understand that they do.

XQ7 You do not know about that personally? A. I do not know definitely.

XQ8 Your job as that of secretary doesn't put you in contact much with what goes on in the shop, does it? A. Not very careful contact except in matters of controversy.

XQ9 You are not an engineer at all? A. I am not.

XQ10 You are not a practical manufacturing man? A. I am not.

XQ11 How many spare cams come with those machines? A. One.

XQ12 That is the only spare cam that you have ever had? A. Yes, sir.

MR. LYMAN: That is all, Mr. Williams.

MR. TOULMIN: That is all. I desire the record to show that the spare cam is out here in the anteroom. We

will be glad to put it in evidence but it is our only spare. Counsel can look at it.

MR. LYMAN: I am afraid it would not do counsel very much good to look at it.

MR. TOULMIN: I share the same difficulty.

Thereupon Mr. Williams retired from the witness stand and

Bruno T. Gialdini,

called as a witness on behalf of defendant, having been first duly sworn, testified as follows:

Examined by Mr. Toulmin:

Q1 Mr. Gialdini, will you state your full name, please? A. Bruno T. Gialdini.

Q2 Your residence? A. Portsmouth, Ohio.

Q3 What is your occupation? A. Williams Manufacturing Company, in the engineering department.

Q4 Do you have anything to do with the shop in any way as to production of the machines? A. I do.

Q5 How long have you been with them? A. Since 1934.

Q6 Have you any familiarity by way of observation of the operation in seeing the heel seat lasting machines that are the subject of this law suit? A. I have.

MR. LYMAN: What is his position, please?

Q7 He is an engineer. They haven't any titles down there—production, engineering generally. Now will you tell us very briefly just what your duties are in the plant—just briefly? A. I am responsible for the development and design of special equipment, for time study, motion study, plant lay-out, and any other problems of an engineering nature that the management might assign to us.

Q8 Mr. Gialdini, did the question of whether there were any screws holding the back of the heel clamps on those machines ever come to your attention? A. It did.

Q9 Can you tell the court about when that was and how you can fix your memory on that subject? A. That was in the summer of 1936, when Mr. Williams took you up to the plant to see the operation of our heel seating machines, and during the lunch period—First you watched the machines in regular operation and

then during the lunch period or rest period you stopped the motor on one of the machines and examined it quite carefully. You looked beneath the machine where the heel band is and you stated there was no screw supporting the heel band. You showed me where there was a screw hole and where the heel clip through which the screw was attached to the machine was. Then we examined the other three machines and found there was no screw in either of the four machines in the plant. Then we questioned the foreman, who seemed to know nothing about it, and then we called our mechanic who at the time, I believe, was Steve Schnabl, who was on duty at the time, and he explained that the screws had started falling off since shortly after the machine had been installed and that he was making no attempt to keep them on the machine.

Q10 Had you had any complaint prior to that time as to the operation of those machines? A. I did not.

Q11 If there had been any complaint would it have come to your attention? A. It would have.

Q12 Did you have any complaint about the operation of the machines subsequent to that time? A. I have not.

Q13 Do you recall the occasion of an inspection by Messrs. Ryan and Condon? A. I do.

Q14 Of one of these machines? A. I do.

Q15 Who selected the machine to put in the inspection room? A. I don't know that anybody selected a machine.

Q16 Just tell your part in getting that machine. A. Mr. Williams asked me to have one of the heel seat lasters delivered to the experimental room and I issued instructions, either to Mr. Schnabl or Mr. Handley, to have the machine delivered to the experimental room and to have it connected to power and to provide lights so it could be examined carefully.

Q17 Was it in condition to be operated in that room? A. It was.

Q18 Did you have shoes there so they could operate it? A. They had shoes.

Q19 Can you tell the court whether it was operated? A. I believe we operated it on some shoes and Mr. Ryan showed us how to carefully adjust the machine in order to get the best results from the machine. We had a full range of sizes of shoes; if I remember right, we had from the largest to the smallest size.

Q20 Were you told by anyone in connection with the management, or anyone else, which machine to select of these four? A. I was not.

Q21 After that inspection what was done with the machine? A. It was taken back to the plant either that same afternoon or the following Sunday and placed in operation.

Q22 That machine has a serial number on it, does it not? A. It does.

Q23 How recently have you inspected that machine? A. I inspected that machine Saturday, this last Saturday, and I inspected it again yesterday afternoon before coming back here.

Q24 Did you have any obliteration of the serial number on that machine? A. I did not.

Q25 To your knowledge has that serial number ever been touched? A. To my knowledge it has not.

Q26 Has the serial number on any of these machines ever been touched? A. They have not.

Q27 Did you have anything to do with the sawing off of the clips at the back of the heel bands, or chopping them off? A. I issued instructions to Mr. Schnabl to have them sawed off.

Q28 Have you any idea about when that was? A. That was following the inspection of the machine by the United representatives. It was either the late fall of 1936 or the first of 1937.

Q29 Have these heel bands been used with clips on the back of them since that date? A. They have not.

Q30 Have any of the heel bands been used with screws and clips since the summer of 1936? A. They have not been used with the screw or the clip which you have been referring to.

Q31 Do you recall the removal of the bight springs from these machines? A. I do.

Q32 Can you tell us about when that was? A. That was about a year ago.

Q33 Have you any way of fixing your memory on the exact date? A. No, I haven't.

Q34 I hand you a letter which may refresh your memory, under date of February 9, 1938, and ask you if you are the person who signed that letter? A. (After examining letter): I am.

Q35 Will you tell us whether or not that letter was sent out in the ordinary course of business? A. It was.

Q36 To whom is it addressed? A. To Toulmin & Toulmin.

Q37 That is myself? A. Yes.

MR. LYMAN (After examining letter): I don't think that is admissible, Your Honor, a letter that the witness has written.

MR. TOULMIN: It enables him to fix the date. We offer it for the same purpose we offered Exhibit Y-1-A, as fixing the date when the transaction occurred.

THE COURT: Of course, this wouldn't be considered the best evidence.

MR. TOULMIN: He has already testified.

THE COURT: I understand. The objection will be sustained.

MR. TOULMIN: Exception, Your Honor. I will have this marked for identification.

THE COURT: For the purpose, you say, of refreshing his recollection.

MR. TOULMIN: That is the only purpose.

The original letter of February 9, 1938, from B. T. Gialdini, The Williams Manufacturing Co. to Toulmin & Toulmin was thereupon marked for the purpose of identification Defendant's Exhibit Z-1.

MR. TOULMIN: He has already testified to the fact it makes no difference as a matter of principle in this case.

By Mr. Toulmin:

Q38 Mr. Gialdini, you have heard the discussion here about the hold-down strap on the side of the machine where that spring is. A. I have.

Q39 Will you tell the court whether or not that construction appears on the other three machines? A. It does.

Q40 Have there ever been any changes in those machines, to your knowledge, since the first day you saw them? A. Not to my knowledge.

Q41 There has been no change? A. No, sir.

Q42 Did you take any photograph over the weekend of the serial number on Number 4 machine that these gentlemen saw? A. I did.

Q43 May I have it, please? (After witness handed photograph to counsel): Were you present when this photograph was taken? A. I was.

Q44 Did you take any other photographs of a machine down there? A. I did.

Q45 Which machine is that? A. That machine is Number 1.

Q46 What is this photograph I hand you? A. Photograph showing the gear guard just above the spring end bar.

Q47 Were you present when these photographs were taken. A. I was.

Counsel for defendant thereupon offered in evidence the two photographs so identified by the witness, and the same are made part of this record, marked respectively, **Defendant's Exhibits A-2 and B-2.**

Q48 Mr. Gialdini, I hand you two more photographs and ask you if you can tell about when they were taken? A. They were taken about a year ago.

Q49 Were you present when they were taken? A. I was.

Q50 Do they show a serial number? A. They show a serial number and show the machine is our Number 4.

Counsel for defendant thereupon offered in evidence the two photographs so identified by the witness, and the same are made part of this record, marked **Defendant's Exhibits C-2 and D-2.**

Q51 Mr. Gialdini, did you notice any difference in production, or did you have any complaints about the productive capacity or quantity of the shoes made on the Moenus machines after the bight springs were taken out as compared with before they were taken out? A. I did not.

THE COURT: Do you think at this time it would be well to have the witness describe the type and quality of shoes they make?

Q52 Yes. Do you have some samples of your shoes here? A. I don't know whether they are here or at the hotel. We do have.

Q53 I hand you four partially completed shoes and will ask you to state of whose manufacture they are. A. They are ours. They are manufactured by the Williams Manufacturing Company, or in the course of manufacture by the Williams Manufacturing Company. We have one that has the heel seat which has not been tacked—

MR. LYMAN: —Why don't you identify them.

A. This one here has been heel seat tacked. These would be identical in the course of operation.

Q54 The fifth one has been heel seat tacked? A. Yes, sir.

THE COURT: Let us see the one that has been.
(Thereupon the court examined the shoe referred to.)

Counsel for defendant thereupon offered in evidence the five partially completed shoes referred to by the witness, and the same are made part of this record as **Defendant's Exhibits E-2-a, E-2-b, E-2-c, E-2-d and E-2-e.**

Q55 Whose manufacture is this shoe, Mr. Gialdini (handing another shoe to witness)? A. Williams Manufacturing Company.

MR. TOULMIN: We offer this in evidence because it is a lasted shoe like one of the unlasted, one of the untacked ones.

The shoe so offered in evidence is made part of this record as **Defendant's Exhibit E-2-f.**

By Mr. Toulmin:

Q56 Do you know, Mr. Gialdini, what price the shoes that you manufacture sell at at retail? A. Around two dollars.

Q57 Will you look at those shoes and tell us whether they accurately represent the stage of process of manufacture in your plant that you customarily employ? A. Will you repeat the question, please?

Q58 Do those shoes correctly represent shoes taken off of your production line? A. They do.

Q59 That includes the one in His Honor's hand? A. It does.

Q60 Would you say these are typical examples of the shoes in the stages of manufacture they happen to be? A. They are.

Q61 In your plant are you manufacturing what is known as a high class shoe, or a quantity production low grade shoe? A. Quantity production standard low grade shoes.

Q62 When were these particular shoes manufactured? Do you know? A. They were manufactured—

Q63 —I don't mean to the day. A. They were manufactured late last week.

Q64 Were they specially selected for any purpose? A. They were taken off of the production line, to be shown here.

MR. TOULMIN: I think, Your Honor, that covers what I have in mind identifying our shoes.

CROSS-EXAMINATION

By Mr. Lyman:

XQ1 Perhaps you can answer, Mr. Gialdini, the question that I asked Mr. Williams and which he was unable to answer, as to whether, when you buy new heel bands, they come with the clip on them or not. A. According to the testimony that was given last week they come without the heel clips.

XQ2 I am asking you. A. I didn't know that they came without the heel clips.

XQ3 You don't know whether they do or not? A. I do not.

XQ4 The testimony was they came with the heel clips on but sawed off. A. That is right.

XQ5 Which is a strange event, but you don't know about that? A. I do not.

XQ6 These four photographs which you produced, marked respectively, A-2, B-2, C-2 and D-2, all show views of the same machine, do they? A. A-2 and B-2 are different machines. A-2 and C-2 are the Number 4 machine, our Number 4 machine. B-2 and D-2—may I refer to a note?, B-2, which is serial number 86680 of our Number 1 machine in Portsmouth; D-2, which is 86679, which is of the Number 4 machine in Portsmouth.

XQ7 I think you will have to tell me again which of these photographs illustrates which machine. Will you state that again? Give the numbers. A. B-2 and A-2 illustrate the two machines that are now in Portsmouth.

XQ8 Which one represents which machine? A. B-2 represents the Number 1 machine, 86680; A-2 represents the Number 4 machine which is now in Portsmouth. These are the two photographs which were taken last Saturday morning. D-2 represents machine Number 86679, which was taken about a year ago.

XQ9 What is the number of the C-2 machine? A. Number 4.

XQ10 What is the number of the Exhibit D-2 machine? A. Exhibit D-2 machine is our Number 4 machine, which is also in Portsmouth.

XQ11 The same machine shown in the photograph A-2, is it? A. That is right. And C-2 also is a front view of the Number 4 machine. There is one there that represents the Number 1 machine.

XQ12 Exhibit B-2 represents Number 1 machine. A. Number 1 machine.

XQ13 A-2 and D-2 represent the Number 4 machine. A. Number 4 machine.

XQ14 What is the number of the machine that is in the court house here? I don't mean the serial number. A. Number 2 machine.

XQ15 Number 2 machine. And the Number 3 machine is the one that is at Minster, is it? A. The Number 3 machine is in Minster.

XQ16 And which do you say is the machine that was shown to Mr. Ryan and Mr. Condon? A. I did not know until the testimony was given here that it was Number 4 machine.

XQ17 So you don't know of your own knowledge which machine was shown to them? A. No, I made no record of the machine we showed them. I knew they were the same—one of the four machines.

XQ18 How were these figures 1, 2, 3 and 4 applied to these machines? A. On the original set-up in our lasting room the machines were across the room, Number 1, 2, 3, 4, and I believe the numbers were placed on so the mechanics would know what machine to go to when they were called.

XQ19 How were the numbers put on? A. They were painted on.

XQ20 Have those numbers been changed at all? A. They have not.

XQ21 I suppose the cards that are shown in these photographs, Mr. Gialdini, which bear the number "1224" and then the following serial number, are simply cards you put in so you could show which machine was being photographed. A. That is right, because the serial number was on the opposite side of the machine and I wanted to show that this bar was on this particular machine.

MR. LYMAN: That is all.

Thereupon Mr. Gialdini retired from the stand and

Stephen Schnabl,

recalled as a witness on behalf of defendant, having been first duly sworn, testified further as follows:

By Mr. Toulmin:

Q93 Steve, I understand that you want to make a correction in one or two of the statements that you

made, or dates. Will you please tell the court what corrections you wish to make in your testimony? A. I would like to make three corrections. I was testifying entirely from memory and I hadn't seen any records whatever. I made a statement that to my knowledge the last screws were ordered in 1934. The invoices show that the last screws were purchased in 1935. Then I made a mistake when I heard about the date of having become a citizen of the United States. I made the statement that I was made a citizen of the United States in 1928. When I came home I looked it up and I made my citizenship the 27th day of September, 1929.

Q94 Have you got any other change you want to make? A. I made another statement that according to my recollection it was about six months ago that those springs had been taken out.

Q95 What springs do you mean? A. Those little springs at the back, and here I found out through correspondence that the springs had really been taken out a year ago.

Q96 Did you look at any records before you came here to testify? A. No, sir.

CROSS-EXAMINATION

By Mr. Lyman:

XQ174 Which of the four machines was it that was shown to Mr. Ryan at that time? A. Which of the four?

XQ175 Yes. A. I believe it was the Number 4.

XQ176 You say you know it was Number 4? A. We have not made any record of any kind. I presume it was Number 4.

XQ177 You presume so? A. What does "presume" mean?

XQ178 I am asking you. A. I believe. Would that be correct?

XQ179 If you don't know, I believe the answer would be "I don't know." A. I am not positive but I believe it was Number 4 because I have heard it mentioned so often.

XQ180 I think that is all. Let me see your citizenship papers. A. (Handing papers to counsel): You see, I had to be in the United States five years and ninety days before I could file any intention for second papers.

MR. LYMAN: That is all.

Thereupon Mr. Schnabl retired from the stand and

Frank A. Handley,

called as a witness on behalf of defendant, having been first duly sworn, testified as follows:

Examined by Mr. Toulmin:

Q1 What is your full name, Mr. Handley? A. Frank A. Handley.

Q2 What is your position? A. Superintendent of Maintenance, Williams Manufacturing Company.

Q3 Where do you live? A. Portsmouth, Ohio.

Q4 How long have you been with the company? A. Ever since they started business.

Q5 As superintendent of maintenance of the company what do you have to do with the machinery? A. Well, I don't practically have much to do with it only moving it to the places wherever they desire it.

Q6 Did you ever have anything to do with the heel seat tackers that are the subject of this present lawsuit? A. I don't understand what you mean by having anything to do with them.

Q7 When did you first see the heel seat tackers that we are talking about here in this lawsuit? A. I saw them in Portsmouth.

Q8 Do you remember about when that was? A. Well, it was in 1933, the last of 1933 we got our first in.

Q9 Did you get any after that time? A. Yes, we got one in 1934.

Q10 Who was here from the company in Germany to set up the machines? A. Mr. Bender.

Q11 Did you aid or assist Mr. Bender in any way in connection with setting up these machines? A. Yes. He was turned over to me to take care of him around the factory there and I was with him when he uncrated them and assembled them.

Q12 Do you know what we mean by the side strap connected with the hold-down? A. Yes, sir.

Q13 Will you please tell the court when you became familiar with that member? A. It was not there when it came. Mr. Bender made them.

Q14 What did he make? A. Just a strap of strap iron, and held on with a screw.

Q15 Was that put on one or all four? A. On all four.

Q16 How did he get the strap iron mounted on the machine, and what holds it on? A. A screw.

Q17 At one or both ends? A. One end.

Q18 With that strap in position—was that strap placed in position when the machines were first set up

or at some later time? A. When he first assembled them he put it on.

Q19 Have those straps ever been changed, to your knowledge? A. No, sir.

Q20 Have any new straps been put on? A. No, sir.

Q21 Have any adjustments been made on those straps, do you know? A. Not to my knowledge.

Q22 Do you know whether or not these machines have any serial numbers on them? A. They have.

Q23 Do you know whether those serial numbers have ever been changed? A. They have not to my knowledge.

Q24 Would they have come to your attention if they had been changed? A. Yes, sir.

Q25 Do you know anything about the wing nuts dropping off the heel bands at the back of the machines? A. I knew the boys had trouble with them but I wasn't with them enough to know much about it. I knew they were dropping off.

Q26 That is all you know about it? A. That is all.

CROSS-EXAMINATION

By Mr. Lyman:

XQ1 You are superintendent of maintenance? A. Yes, sir.

XQ2 What do you have to do with these particular machines, these heel seat lasters of the Moenus type? A. Well, I have all of the maintenance boys under me.

XQ3 Do you ever do anything with the machines yourself? A. No, sir.

XQ4 You wouldn't know whether there had been any change in those stops that you are speaking of, those stop rods, would you? A. I said I didn't know to the best of my knowledge that any changes had been made.

XQ5 Your knowledge would not be sufficient that you would know anyway, would it? A. I think so.

XQ6 Why? Why would that come to your attention? A. I don't know as it would come to my attention but I could tell by looking at them that they were the same as they were when he put them on.

MR. LYMAN: That is all.

MR. TOULMIN: That is all, Mr. Handley.

Thereupon Mr. Handley retired from the stand and

Frank Cooper,

called as a witness on behalf of defendant, having been first duly sworn, testified as follows:

Examined by Mr. Toulmin:

Q1 What is your name? A. Frank Cooper.

Q2 Where do you live? A. Portsmouth, Ohio.

Q3 What do you do for a living? A. Work at the Williams Manufacturing Company.

Q4 What kind of work do you do there? A. I am a heel seat last operater, machine operator.

Q5 What kind of a machine do you operate? What is the name of the machine? A. Moenus.

Q6 A machine like that out in the hall that you saw this morning when you came in? A. Yes, sir. That is the machine I have been running.

Q7 That is your machine? A. Yes, sir.

Q8 Have you run any other machines in the plant like that? A. Yes, sir, I have run all of them.

Q9 How many are there? A. There are three there at the present time.

Q10 How many were there? A. Four.

Q11 When did you first go with the company to do this kind of work? A. I would say about five years ago.

Q12 Did you have anything to do with the uncrating and setting up of these machines? A. No, sir.

Q13 How soon after the machines got in about five years ago did you start to operate them? A. They tried me out on the first machine.

Q14 You have been operating them ever since; is that right? A. Yes, sir.

Q15 Do you know what the heel band is in the machine? A. Yes, sir.

Q16 I wish you would tell the court what experience you had with the attachment of the heel band at the back of it with the wing nuts. Just tell the whole story. A. Well, we had a terrible lot of trouble with the wing nuts when they first came in, and they kept falling off and we did not seem to be able to keep them on, and the wing nut on my machine was really off as much as it was on, so finally, after about a year or two years, they just left them off altogether.

Q17 Is there any difference in the operation of the machine with or without them? A. I don't see that there is.

Q18 After the first, say, couple of years of these nuts falling off and were left off were they ever put back on again? A. No.

Q19 Is there any advantage or disadvantage in not having the wing nuts on the back? A. It is an advantage inasmuch as we use two heel leather pads and we change from white shoes to black shoes and you can make the change much quicker without the nuts.

Q20 Do you notice any difference in the operation of your machine during the last year as compared to previous years? A. No, I don't.

Q21 Do you know of any change that has been made in that machine other than the heel clip falling off, this wing nut? A. No, sir.

Q22 Do you know of any change being made on that side strap on the hold-down at any time? A. No, I do not.

CROSS-EXAMINATION

By Mr. Lyman:

XQ1 Who have you talked with about the testimony you were going to give here today? A. Mr. Toulmin.

XQ2 Go ahead and tell us if there is anybody else. A. Nobody else.

XQ3 When did you talk to him? A. Talked to him last Saturday.

XQ4 For the first time? A. Yes, sir.

XQ5 Isn't it true that after the screws were taken off from those machines about December, 1936, that you demanded that they be restored to your machine? A. No, sir.

XQ6 You are sure of that? A. Yes, sir.

XQ7 They were restored to your machine, weren't they? A. No, sir.

XQ8 Never had the screws back after they were taken off originally in 1936? A. No, sir.

MR. LYMAN: That is all.

MR. TOULMIN: That is all.

Thereupon Mr. Cooper retired from the witness stand and

Edward L. Cronin,

called as a witness on behalf of defendant, having been first duly sworn, testified as follows:

Examined by Mr. Toulmin:

Q1 State your full name. A. Edward L. Cronin.

Q2 Where do you work? A. Williams Manufacturing Company.

Q3 Portsmouth? A. Yes, sir.

Q4 Is that where you live? A. Yes, sir.

Q5 How long have you been with the company? A. About six years.

Q6 What do you do with them? A. Operate a heel seat tacker.

Q7 Like this one out here in the hall? A. That one; that same machine.

Q8 You take turns on operating that machine with Cooper, who just left the stand? A. Yes, sir.

Q9 What do you run, two shifts? A. Yes, sir.

Q10 How long have you been running heel seat tackers of that sort? A. I guess about five years.

Q11 Do you know what the heel band is on that machine? A. Yes, sir.

Q12 Do you know what we are referring to when we talk about this wing nut in the back of the band? A. Yes, sir.

Q13 Tell the court your experience with that nut staying on there or falling off and how long it stayed on and everything about it. A. Well, it would drop off every once in a while and fall into the machine, and we couldn't get it—you would have to get down and get your hands dirty, and we would have to put it back, and working on white shoes you would get them dirty. We didn't pay much attention to it. I mean if one dropped down we would get another one and put it on.

Q14 How long have you been operating these heel seat tackers? A. Five years.

Q15 Which one did you start on, do you recall, as the first one you operated? A. I operated the second machine that was set up.

Q16 How long did these screws at the back of the heel band stay on, to your recollection? A. Not more than two years I don't think we used them.

Q17 How do you fix that period of time? Have you any way of fixing it? A. No definite way.

Q18 Are you operating them now with the back of the band attached in any way? A. No.

Q19 Did you ever complain about the heel band not being attached to the back? A. No, sir.

Q20 Why didn't you, if it fell off? Does it make any difference in the operation of the machine? A. No. I liked it better with it off.

Q21 Why did you like it better? A. As Cooper mentioned, changing the band was much easier. It takes about one-fourth of the time to make the change.

CROSS-EXAMINATION

By Mr. Lyman:

XQ1 Who have you talked over your testimony with? A. With Mr. Toulmin.

XQ2 When did you talk with him? A. Saturday.

XQ3 The first time you ever talked to him about this? A. The first time I ever talked to him.

MR. LYMAN: That is all, Your Honor.

Thereupon Mr. Cronin retired from the stand and

Bruno Kath,

called as a witness on behalf of defendant, having been first duly sworn, testified as follows:

Examined by Mr. Toulmin:

Q1 Will you state your full name? A. Bruno Kath.

Q2 Where do you live, Mr. Kath? A. Frankfurt on Main, Germany.

Q3 What is your occupation? A. I am a mechanical engineer engaged on patent work for my company.

Q4 How long have you been with the Moenus Company?

MR. LYMAN: You have not asked him if he was connected with the Moenus.

MR. TOULMIN: I thought he said so.

MR. LYMAN: I don't think so.

By Mr. Toulmin:

Q5 With what company are you connected? A. The Maschinenfabrik Moenus A. G.

Q6 How long have you been with that company? A. Since January, 1932.

Q7 And were you with any company manufacturing shoe machinery prior to that time? A. Yes, sir.

Q8 What company? A. I have been at Leipzig, Germany, with the Atlas Works.

Q9 What year did you say you came with Moenus? A. 1932.

Q10 Have you made any study of shoe machinery patents? Yes, that is my duty with my firm.

Q11 Have you made any particular study of the so-called first McFeely patent? A. Yes, sir.

Q12 Number 1,129,881? A. Yes, I did.

Q13 Have you made a study of the McFeely patent in suit 1,558,737? A. Yes.

Q14 And have you made a study of the Hoyt patent 1,508,394? A. I have.

Q15 Have you made a careful study of the Model A machine of the plaintiff out here in the anteroom? A. I have.

Q16 Did you make a study of the Model D of the plaintiff out in the anteroom? A. I have, also.

Q17 Have you made any study of the Pym patent 1,368,968? A. Yes.

Q18 Now, Mr. Kath, there has been some discussion here as to bed lasters. Are you familiar with bed lasters? A. To a certain extent I am; to a great extent I am.

Q19 Does your company make bed lasters? A. Yes, sir.

Q20 What is the difference, generally speaking, between a bed laster and a heel seat tacker? A. A heel seat tacker really is a bed laster because as a bed laster we refer to any machine that does lasting by means of wipers that go over the shoe and break the margin of the upper and lay it over the insole. And a heel seat tacker is a machine, really a bed laster with tackers applied to it.

Q21 What sort of machine does the Pym patent represent? Have you got a copy of that patent before you? A. No.

Q22 I will hand you a copy. Does this represent a bed laster (handing document to witness)? A. Yes, sir, it does.

Q23 Is that machine hand operated or automatic or semi-automatic? A. I should call it semi-automatic. It has got hand adjustments and cams to work the instrumentalities.

MR. TOULMIN: If the court pleases, that is the patent we were sued upon.

THE COURT: Oh, yes; I know what it is.

By Mr. Toulmin:

Q24 Now, Mr. Kath, have you compared the Model A machine of the plaintiff here, which is Plaintiff's Exhibit Number 4, with the first McFeely patent, 1,129,881? A. I have.

Q25 Will you please tell the court what principal features of this McFeely patent you found embodied in this Model A machine, Exhibit Number 4.

MR. LYMAN: I don't know, Your Honor, whether it is the practice of this court to have two expert witnesses go over the same ground.

MR. TOULMIN: This man is not going over the same ground.

MR. LYMAN: I think this was the same subject we listened to at great length with the professor.

THE COURT: I don't know if this is just preliminary to something or not.

MR. TOULMIN: I will tell Your Honor, if you want.

THE COURT: Do you want to make a statement now?

MR. TOULMIN: Yes, Your Honor, I think I will make a statement now. I want to have Mr. Kath, who is a shoe machinery engineer—Dr. Greene is not a shoe machinery engineer—testify as they have had various engineers testify that the Model A is in substance the first McFeely patent, because I want to use that proof to show whatever commercial success there was in Model A and later in Model D was due to the first McFeely patent as contrasted with the second McFeely patent, and I wish to show as to Model D it embodied many of the first McFeely features plus the Jorgensen features. That is necessary and vital to our case. We want this engineer to so testify.

MR. LYMAN: The subject-matter has been gone into already, Your Honor, by the other witness.

MR. TOULMIN: No, I did not.

MR. LYMAN: We may get into a very long cross-examination if we go into all these things.

THE COURT: If it is necessary I don't see that we can avoid it. It might be regarded as serious error to shut off this examination, so in order to avoid that we will permit it. You may have an exception.

MR. TOULMIN: I don't think it will be so long.

THE COURT: All right.

By Mr. Toulmin:

Q26 Now, Mr. Kath, will you summarize for the court and ourselves the features of the Model A machine, Exhibit 4 of the plaintiff, which you found in the first McFeely patent? A. I will put it this way. I found that the Model A machine is in substance covered by the McFeely patent Number 1 but there are some differences, some substantial differences. One feature applies to the heel band which is in the Model A attached at the back, while in the McFeely patent Number 1 it is not. Then I found a difference in the hold-down member which, ac-

cording to the McFeely patent, is not adjustable in its amount of movement.

THE COURT: I think we could follow a little closer if you will just refer to the earlier one as the first McFeely patent and the Model A as the second McFeely. You want to distinguish the characteristics of the latter McFeely over the early one.

MR. TOULMIN: No, Your Honor. I want to show that the first McFeely patent is embodied in their Exhibit 4, their Model A machine, and he was endeavoring to shorten this thing by arguing everything in the first McFeely was in that Model A except certain things he was going to call attention to that were not there. Let me start again, Your Honor. It is difficult for him sometimes to understand.

By Mr. Toulmin:

Q27 I want you to take the Exhibit 4 machine, the Model A. You understand what that is. A. Yes, I do.

Q28 And compare the principal features of that with the first McFeely patent, 1,129,881, and point out the similarities between those two machines in their essential features, if there are any. A. Yes. Starting with the jack, it is a tipping-in jack, which is the same, is a similar feature.

THE COURT: Raise your voice.

A. The jack is the same, substantially the same as in the McFeely patent. It is tipping in and is raised into contact with the hood. The heel band is substantially the same except that it is attached by means of a clip at the back. The machine has got a back stop which can be moved forward and backward. Then as another feature we have the wipers and the tackers which are movable relative to each other, also as they are in the first McFeely patent. Then the hold-down which comes into contact with the bottom of the last of the shoe, which is movable up and down but not adjustable in its amount of movement. Then the tacking device—I mean the tacks are applied the same, or substantially the same, and the operation of the heel band and of the jack are derived from the same cam. The jack receives an in-draw movement and an out-draw movement, which means the jack is drawn into the heel band and it is also drawn up against the stop, against the hood. The machine has got two treadles. In the McFeely patent it has only got one, in the early McFeely.

Q29 Now confine yourself to the similarities for the moment. I will come to the differences later. A. I think that is practically all.

Q30 All right. Now tell the court what differences you find in the Model A, Exhibit 4, machine and the first McFeely patent 1,129,881. I mean the essential differences. A. Yes. I have pointed out already the heel band which is attached by means of a clip at the back. Then the second difference is the stop for the—or put it this way—is the means for adjusting the lift of the hold-down, which is not in the McFeely patent.

Q31 What is that means for? Upwiping? A. I think it is for upwiping, yes, and for positioning the shoe.

Q32 What else do you find? A. I find that the Model A has two cams for operating the jack. The McFeely patent has only got one.

THE COURT: I will tell you—You see, the Model A represents the first McFeely patent, doesn't it, out there?

MR. TOULMIN: No, Your Honor; it is supposed to represent the McFeely patent in suit.

THE COURT: Then the original McFeely is not here, is that it?

MR. TOULMIN: No, sir.

MR. LYMAN: The original McFeely was never built, Your Honor.

THE COURT: The second one out there is an improvement over the Model A.

MR. LYMAN: That is the present form in which this invention is manufactured and marketed. The old McFeely patent this witness is talking about, 1,129,881, is the patent which I said was impractical and never used, and the patent in suit purports to improve upon that patent in certain respects, and the Model A which we have had here is the literal embodiment and the first embodiment of this patent in suit. The Model D is the form including some modifications.

THE COURT: It is the latest.

MR. TOULMIN: That is the latest thing. That is the reason why it is essential for me to bring out the first one is embodied in that machine. That is the only one we have got.

MR. LYMAN: He is comparing the Model A.

THE COURT: He is comparing the Model A with the original McFeely, of which we have no model.

MR. TOULMIN: That is right.

MR. LYMAN: That is right.

THE COURT: I was having difficulty in following.

MR. TOULMIN: It is helpful to have that comparison.

By Mr. Toulmin:

Q33 Had you completed that? A. No. I think I have to mention that to my mind this machine also has upwiping.

Q34 Is that upwiping found in the first McFeely patent? A. No.

Q35 Go ahead. A. No. I could not see much movement in the upwiping, what I consider to be upwiping, because the stop or the bar which extends from the cam lever to the front of the machine has been drawn up already far enough from the cam so the cam roller hardlly touches the cam, so there won't be much movement, and consequently it is very difficult to see. But I think it has upwiping.

Q36 You have summarized the principal features in which the Model A machine is like the first McFeely patent 1,129,881, have you not? A. I have.

Q37 And you have also called the court's attention to the differences that exist between that first patent and the Model A machine, is that right? A. I have.

Q38 Will you compare the Model D machine, which is Plaintiff's Exhibit Number 7, with the first McFeely patent, as to what features the Model D machine embodies of the first McFeely patent? A. Model D machine has what is practically the same elements as the Model A machine except that it has its tackers and wipers arranged according to the Jorgensen patent. That means the tackers and wipers are—

THE COURT: —That is where you tack through.

A. Yes, are made to tack through the wipers and are positioned vertically. And the tack supply and distribution is different.

Q39 Is this the patent you are referring to? I hand you the Jorgensen patent 1,852,015, of April 5, 1932, filed April 16, 1929, and marked Defendant's Exhibit A for identification. A. Yes, this is the patent I refer to.

Q40 How does the mechanism shown in the drawings of that patent compare with the mechanism of the Model D, Exhibit 7, machine of the plaintiff? A. As far as I can see it is the same.

MR. TOULMIN: We offer this patent in evidence as our Exhibit A.

MR. LYMAN: I object to it as immaterial, Your Honor. As I explained the other day, it is just a patent

that shows the details of construction, this matter of getting the tacker to hit the nail head on a slanting direction.

THE COURT: How does it become relevant?

MR. TOULMIN: It becomes very important, Your Honor—I shall have authorities to show you as a matter of law, in addition to facts,—it becomes important to show this commercial success was due to two things: First, that the fundameatal features were in the first McFeely machine, and that the improvements on the Model D machines were of a later patent and not of the patent in suit to McFeely.

THE COURT: That goes to the commercial success of McFeely arrived at before 1932.

MR. TOULMIN: No, Your Honor, that patent was filed in April, 1929. They evidently had the construction prior to that time because they embody it in the machine. They say they supplied the Model D from quite a period prior to 1929. They only made twelve of the Model A, so that construction must have been embodied in a machine long before that time. We have deemed that vital to the defense on that subject.

THE COURT: I don't know. I think that is going too far. The objection will be sustained unless you can establish your right by authorities.

MR. TOULMIN: If Your Honor will suspend it on that basis I will produce the authorities for you.

THE COURT: Of course, we have been in the trial of this case now some few days and it is hard to keep constantly in mind the accumulation of testimony, but it seems to me that the evidence was that the Model A machine, Exhibit 4, out there has been manufactured for some years prior to the time that was filed.

MR. TOULMIN: We are not claiming this is Model A; we are claiming this is the Model D.

THE COURT: I understand, but the other model out there now, Exhibit 7, is of course the latest model of the McFeely machine, but it embodies all the earlier McFeely patent plus the newer McFeely features; is that right?

MR. LYMAN: That is right.

MR. TOULMIN: That is correct.

THE COURT: If McFeely was being successfully used and sold—some twelve hundred were sold; is that right?

MR. LYMAN: Those figures are the numbers that are now outstanding.

MR. TOULMIN: Only twelve were sold of the first McFeely.

MR. LYMAN: The figures given are the models now —the machines now in use, are 1250. There have been successive models beginning with the Model A, which was exactly like the patent, and then this and that minor change, culminating with the Model D which we have here.

MR. TOULMIN: May I make a suggestion, Your Honor?

THE COURT: Yes.

MR. TOULMIN: It is very easy for us patent lawyers to make this thing difficult. May I suggest we suspend your ruling on this until we produce authorities on this, and make up your mind whether we are wrong or right on it, because I have completed the testimony on it.

THE COURT: All right. May I suggest this to counsel. It seems to me now—I may be wrong, but it seems to me, without going back over the notes, that there is evidence in the record showing the success of the McFeely patent prior to 1929, the date of application of the Jorgensen patent.

MR. LYMAN: There is.

THE COURT: And your purpose here is to show the commercial success of the McFeely patent followed the adoption of the Jorgensen patent; is that right?

MR. TOULMIN: No. My purpose is to show that the commercial success of the Model D machine was due to the Jorgensen patent in part and not to the McFeely patent in suit exclusively, because these features are essential commercial features, and they have shown it by adopting them.

THE COURT: We are getting away, then, from the real issues in this case, which is a question of infringement of the McFeely patent.

MR. TOULMIN: I agree with Your Honor. I objected to Model D in the beginning for that reason, but I was overruled and I must put in this proof to protect my client on account of that state of the record. I am in thorough agreement on that.

MR. LYMAN: If Mr. Toulmin is not going to take up any more time on that, Your Honor, in order to avoid delay I am willing to withdraw by objection to the putting in of that Jorgensen patent and the evidence and let it go in for what it is worth, if it isn't going to take any more time. He said he has finished.

MR. TOULMIN: I have no intention of taking any more time, but I am not afraid of it.

The Jorgensen patent so offered in evidence, No. 1,852,015 of April 5, 1932, is made part of this record as **Defendant's Exhibit A.**

At this point a short recess was taken, after which Mr. Kath resumed the stand.

MR. TOULMIN: You may have the witness, Mr. Lyman.

THE COURT: I was wondering, Mr. Toulmin,—it might be considered as improper and not acceptable—whether or not through this witness the defense is willing to stipulate whether or not there are any improvements in the second McFeely patent that were not in the first McFeely patent.

MR. TOULMIN: He has already testified, Your Honor, that there is upwiping in the second, which is not in the first.

MR. LYMAN: Your Honor, we have already brought out in our testimony what those improvements were.

THE COURT: I understand. I just thought—

MR. TOULMIN: —I asked him that question to bring that out.

THE COURT: I know you did—but just by way of stipulation.

MR. TOULMIN: I will be very glad to state right now that the only difference that we find between the two that is material, first, is the difference that one has upwiping and the other hasn't, that is, the second has upwiping and the first doesn't, and in the first there is no attachment between the back of the hold-down and this pusher and in the second there is.

MR. LYMAN: Your Honor, since Mr. Toulmin takes that position, we can't expect any stipulation on that point. We shall have to rely on the evidence, because while there are specific differences they are very far from the principle, so we can't stipulate on that.

CROSS-EXAMINATION

By Mr. Lyman:

XQ1 When did you come to this country, Mr. Kath? A. On the 29th of December, 1938.

XQ2 You came for the purpose of preparing for testifying in this case, did you? A. Generally speaking, yes.

XQ3 And you have been cooperating with Mr. Toulmin in getting ready for the trial? A. Yes, I told Mr. Toulmin what I knew about these machines.

XQ4 You have been working on these drawings and sketches and various exhibits that were introduced in the case? A. No, sir, I have not. I have only been giving a hand in coloring.

XQ5 Had you ever seen the Model D machine in Germany? A. No, not the Model D.

XQ6 What model of the United Shoe Laster have you seen in Germany? A. I seen one, I think it was Model A.

XQ7 Have you ever had drawings in your possession showing the United Shoe heel seat laster? A. No, except the patent drawings.

XQ8 You have seen the patent drawings? A. The patent specification I saw.

XQ9 The patent specification. It is part of your duty to keep track of patents issued in the United States, as well as in other countries? A. It is, yes, sir.

XQ10 On machinery of this class? A. Yes, sir.

XQ11 Do you recall an incident that happened at the factory of the Bata Shoe Company in Zlin, Czechoslovakia, when a United Shoe heel seat laster was taken apart and drawings of it made by Mr. Heinrich Mueller, of the Moenus Company? A. No, sir.

MR. TOULMIN: We object, Your Honor.

THE COURT: The answer is "No, sir."

XQ12 You don't recall any such thing? A. I don't know.

XQ13 That is to say, you were not present when any such thing happened? A. I don't know anything about it.

XQ14 You went to see the United Shoe Machinery Corporation after the notice of infringement had been sent to the Moenus representative, Albeko Shoe Machinery Company?

MR. TOULMIN: I object, Your Honor. I did not go into this question on direct.

MR. LYMAN: The situation is a little different, Your Honor.

MR. TOULMIN: There is no difference in the situation, Your Honor. This is trying an entirely different lawsuit against a different defendant.

THE COURT: I understand that, but of course this witness is subject to impeachment, attack on his credibility. I don't know what the object of the question is.

MR. LYMAN: The object of the question is, Your Honor, this witness now takes the position that in the United Shoe Machinery Company lasters here in evi-

dence there is no substantial difference exhibited as compared with what was present in the first McFeely patent. The fact is that when the notice of infringement was sent to Moenus this witness, representing Moenus, explained to Mr. Condon that they in their search had overlooked the McFeely patent in suit and requested a license under that patent, which was denied, and then offered to remove from this country all of the machines which they had installed here if they would relieve them of damages for past infringement. It seems to me that is perfectly competent.

MR. TOULMIN: In the first place, that allegation was in Paragraph 9 of the original bill of complaint and upon motion stricken; secondly, it was the purported subject-matter of Mr. Cobb's testimony and again stricken and the correspondence stricken. Assuming to be true all he said, let us assume that for the purpose of argument, nevertheless it would not settle this lawsuit on the question of validity at all. It has no bearing on this issue at all.

MR. LYMAN: May I say that while it is true that an allegation that the Moenus Company had agreed to remove all of its machines in this country was stricken from the answer on order of Judge Nevin on defendant's motion, thereafter defendant filed its answer in which it made the allegation which I read to Your Honor when it originally came up, to-wit, the allegation that the defendant had gone into this matter—that defendant Williams had been lulled into security by the fact that plaintiff had taken no steps, sent no notice of infringement and taken no steps.

THE COURT: I think so far as this testimony relates to the controversy between the United Shoe and Moenus it is not relevant, but the witness could be examined in view of his statement that there is no substantial change in the second McFeely over the original McFeely, as to how he can reconcile it with this other knowledge on learning of the second McFeely patent.

MR. LYMAN: That is what seems to me makes the evidence material.

THE COURT: I think he may be examined as to his statement there is no substantial difference, without reference to the admissions of the Moenus Company.

MR. LYMAN: Your Honor, the course of conduct of the Moenus Company, to which this witness was a party, belies the allegation that there is no novelty in the patent in suit over the prior patent.

THE COURT: What I mean to say is we do want the testimony to be limited strictly to proving or disproving the issues between plaintiff and defendant in this suit without reference to any controversy you may have with Moenus, who is not a party to this suit, but I say that the witness may be examined as to a statement that there is no substantial change, and he may be asked as to any statement made concerning the overlooking of the McFeely patent with reference to the Moenus situation. Is that clear?

MR. LYMAN: I think so, Your Honor. I will try to follow that, and if I go beyond what Your Honor's suggestion is, of course you will check me, and my brother will. I think I have in mind what Your Honor suggests.

MR. O'DONNELL: May I be heard on that a moment, Your Honor?

THE COURT: Yes.

MR. O'DONNELL: The point I would like to bring out at this time is that here we have a representative of a foreign corporation. They are threatened with an infringement suit by the United. The law favors compromises and settlements. Whatever they may do or say in connection with a threatened lawsuit should not be held as an admission or a statement, because the law protects anything that they may say or do by way of a compromise settlement or adjustment of a threatened lawsuit.

THE COURT: I know, but we are past that. I am ruling with you on that point.

MR. O'DONNELL: I understood you to say he might be permitted to show him a letter, for instance, which his company wrote in which they made the statement—

THE COURT: —No, the point is here, as I say, I am trying to keep the record free of any testimony or any controversy between the United Shoe and Moenus and to limit the record to testimony proving or disproving the issues in this suit, but this witness has made a statement on direct that there is no substantial difference in the second McFeely over the first McFeely. Now, he is subject, of course, to impeachment or attacks on his credibility.

MR. O'DONNELL: That is correct.

THE COURT: And if he did make a statement at some time that they had overlooked the second or original McFeely patent he may be examined as to whether or not that would alter his testimony that there are no substantial changes in the second over the first.

MR. O'DONNELL: That they overlooked it—that is, the Moenus?

THE COURT: That he personally overlooked it.

MR. O'DONNELL: That he made a statement to that effect.

THE COURT: Yes, this witness, not the Moenus Company. He is subject to attack on his credibility, and impeachment.

MR. O'DONNELL: Even though statements might have been made in negotiations with the United for settlement of a threatened infringement suit of this company.

THE COURT: We are going to try to do the best we can to keep this record straight and at the same time give everybody their rights.

By Mr. Lyman:

XQ15 Mr. Kath, you had at one time an interview with Mr. Cobb, of the patent department of the United Shoe Machinery Corporation? A. Yes.

XQ16 That was in January of 1936? A. The end of January or beginning of February; I am not quite sure on those dates.

MR. TOULMIN: Our objection goes to all of this, Your Honor.

XQ17 How did you happen to be in this country at that time?

MR. TOULMIN: We object. That will go into the whole question.

XQ18 I don't know—I will strike that question out. In the course of that conversation you had with Mr. Cobb did you say when you authorized the marketing in this country of the Moenus heel seat laster you had made a search of the art and had overlooked the McFeely patent here in suit?

MR. TOULMIN: We object.

THE COURT: The witness may answer.

MR. TOULMIN: Exception.

A. May I have the question again, please? (After question was read): That statement is not quite correct. That was not me personally. I did not make that assertion personally. It was made by my firm, by somebody else.

MR. O'DONNELL: We object. You can't testify to that. He can't testify to what was said by his firm. That is hearsay.

THE COURT: This witness may be examined, I say, as to what he knows about that, as bearing on his credibility.

XQ19 I am asking you what you said then to Mr. Cobb in that connection. Put that in your own words. A. What I said to Mr. Cobb?

MR. TOULMIN: Same objection.

THE COURT: He may answer.

A. As far as I remember I said to Mr. Cobb "This patent has been overlooked and we don't think the patent is valid but we don't want to have any litigation on it." And there was some talk whether there could be a license given. As far as I remember I did not ask for a license but there was some talk as regards a license and then it has been decided we could not have a license, and then I offered to withdraw, to get my firm to withdraw these four machines which were in the country, and they in turn offered not to sue us on this matter. Now, I must correct this statement. I did not say then the four machines; I said we had some machines in this country, two I knew of and the machines which were at Williams I did not mention.

MR. TOULMIN: I move to strike that answer because it gives counsel the answer which involves the Moenus Company and the whole question of admission.

THE COURT: The portion of the answer after the statement he overlooked the McFeely patent—You said that?

A. The firm has overlooked it, the company.

MR. LYMAN: The McFeely patent in suit?

A. Yes.

THE COURT: The motion as to the latter part of the answer will be stricken and you may have an exception.

MR. LYMAN: I take it under the rule it will stay in the record so the Court of Appeals can pass on that question.

THE COURT: Oh, yes, it is in the record.

MR. LYMAN: I think that is all, Your Honor.

MR. TOULMIN: That is all.

Thereupon Mr. Kath retired from the witness stand.

MR. TOULMIN: Now, if Your Honor please, down in the Williams plant we have two mechanics who keep machines going. One is Steve, the man you saw here this morning. I have talked to Reinhardt, and I would like to have his testimony. For that reason I have sent Steve back and Reinhardt is on his way here. I have

been told he will get here at three o'clock. I have no other witnesses until he arrives. Your Honor has been more than good to us and I am embarrassed, but I was laboring under a condition I couldn't help.

MR. LYMAN: I am sorry. I wasn't listening to what Mr. Toulmin said at the beginning.

MR. TOULMIN: I said I had finished all of my fact testimony with the exception of your completing the cross-examination of Dr. Greene, and this one man Reinhardt whom Steve mentioned, and I have him coming here to testify and he is on his way here to exchange with Steve.

THE COURT: Is his testimony necessary?

MR. TOULMIN: I don't want anything said on this record we did not produce him. I want to have him here so there won't be any question about it.

MR. LYMAN: I shouldn't object, Your Honor, to that. I think we could go on with perhaps a couple of witnesses on our case. Of course, I can't go on and complete it until the cross-examination of Professor Greene is finished and this witness that Mr. Toulmin is going to produce has testified, but I think we are all interested in saving as much time as we can and if we could adjourn now until two o'clock I think we could start with a couple of witnesses.

I want to say with reference to this last witness, Your Honor, that he made a number of statements which are mere conclusions and that I did not cross-examine him about those because I think the record is plain, or will be plain on those points, and I hope it is understood that my failure to cross-examine the witness on those points is by no means an admission of the truth of what he says.

MR. TOULMIN: That is your responsibility.

At this point a recess was taken until two o'clock in the afternoon of the same day, Tuesday, January 24, 1939.

AFTERNOON SESSION

TUESDAY, JANUARY 24, 1939.

Court met pursuant to recess, counsel being present on behalf of both parties.

MR. TOULMIN: With Your Honor's permission I would like to recall Mr. Williams and ask him one question, so I think the record will be clear.

THE COURT: All right.

Thereupon,

Forrest L. Williams,

recalled as a witness on behalf of defendant, having been heretofore duly sworn, resumed the stand and testified further, as follows:

By Mr. Toulmin:

Q52 Mr. Williams, will you tell the court whether the Moenus Company, the manufacturers of the machines here in question, is directing, financing, controlling, or in any way managing the defense of this case? A. They are not.

Q53 Who paid the expense or guaranteed the expense of Mr. Kath coming to this country? A. Williams Manufacturing Company.

Q54 Is the Moenus Company contributing financially in any way to this suit? A. To the extent I would judge of Mr. Kath's salary, but nothing financially.

Q55 Nothing financially? A. No, sir.

MR. TOULMIN: That is all.

MR. LYMAN: No cross-examination.

MR. TOULMIN: If Your Honor please, I would like to offer in evidence the two file wrappers of the patents in suit. I do not have certified copies of either one, but Mr. Lyman has agreed we can substitute later the certified copies. I would therefore like to offer in evidence the file wrapper of the McFeely patent 1,558,737, as Defendant's Exhibit F-2, and the file wrapper of the Hoyt patent in suit, 1,508,394.

Certified copies of the file wrappers so offered in evidence were later substituted for the typewritten copies first supplied, and the said certified copies are made part of this record, marked as follows:

Defendant's Exhibit F-2, of patent in suit 1,558,737, to McFeely.

Defendant's Exhibit G-2, of patent in suit 1,508,394, to Hoyt.

MR. TOULMIN: Your Honor, I want to say this. In the interest of economy of time and expecting we will be able to brief this case, I am not going to state certain positions as to our defense and our purpose of certain proof at this time which I ordinarily otherwise would, because we can expedite matters when that comes up later. So if Your Honor will indulge me I think we can save time by doing that, and not think I have neglected it, because I think that is the quickest way.

Testimony of Forrest L. Williams (Recalled).

MR. LYMAN: Will the ararngement be, Your Honor, that after the conclusion of the trial we file briefs and argue it at some later time?

THE COURT: That is the way we usually do. I think that is the best way. It will give you an opportunity to study the testimony in the case and prepare your briefs and agree on a day for oral argument later.

MR. TOULMIN: That will be very nice.

MR. LYMAN: Yes.

Thereupon,

Rene E. Duplessis,

called in rebuttal on behalf of plaintiff, resumed the stand and testified as follows:

By Mr. Lyman:

Q17 Mr. Duplessis, I wanted to ask you what the function of these set screws which are mounted in the pivoted arms in the plaintiff's machine, as shown in Plaintiff's Exhibit 8-A, and which are also present in the defendant's machine, as indicated on Plaintiff's Exhibit 34, is. A. Your Honor, in the New York territory we had a heel seat lasting machine placed on which they wanted to do very small children's shoes and a man filed this abutment that you see here, which has been called the back stop, so that these arms could close in more so that a very small heel band could be inserted and we would have a conformity to it. Later on they wanted to put a woman's heel band of a considerably larger size, and these arms, through the springs, were exerting pressure so much on the band that it was keeping it closed all the time. The complaint came in to our experimental department and I was assigned the job of inserting set screws in there so we could limit the motion of these arms when we used the large band, and let them come in as far as they could in the use of a small band.

THE COURT: That was my suggestion yesterday. I said it appeared that they were to offset the pressure from those two (indicating on model). Is that the real object?

MR. TOULMIN: That is correct, Your Honor. We have no dispute about that.

Q18 That is to say, the pressure of these members would bring them in too far. A. Yes. It kept on

wearing the bands out and they did not become effective any more on the women's shoes.

THE COURT: That is what I meant yesterday when I asked Dr. Greene if it was his testimony that because of these two screws that it nullified, and he said yes.

MR. TOULMIN: That is right. We are in agreement that is one element.

MR. LYMAN: Of course, we don't agree with that at all.

THE COURT: I understand, but I wanted to get definitely just what his position was as to these two screws, but it was his suggestion because of these two screws that it nullified that element of the claim that referred to loosely mounted arms.

A. Your Honor, we did not change the mounting of the arms at all. We just added the set screws and we did that very late in 1921.

THE COURT: That is all right.

MR. LYMAN: Your Honor understands it is our theory—

THE COURT: —Yes, that it does not nullify that element of the claim.

MR. LYMAN: Your witness, Mr. Toulmin.

MR. TOULMIN: No cross.

Thereupon Mr Duplessis retired from the witness stand.

MR. LYMAN: I want, Your Honor, now to explain the construction of the tacker-wiper combination in that old McFeely patent. It is pretty complicated and we have had a model built by which it can be illustrated.

THE COURT: That is the early McFeely patent which you say the present—

MR. LYMAN: —Which this patent in suit improves. Let me remind you what the McFeely patent in suit shows in this respect. (Indicating chart): This is the McFeely patent in suit and there is a manual adjustment out here for the preliminary movement of the wipers. Remember, we traced that through. Here it is on this model (indicating). The operator moves this ratchet and that has the effect, through these connections in here, of making these wipers swing in or out so they can conform to the particular size of the shoe you are going to operate upon. That is a manual adjustment preliminary to the actual operation of the shoe, and then when that is done and the machine operates, by a power stroke it gives the power movement; but there is a pre-

liminary adjustment in this machine for making the wipers, before they have had the power movement, conform to the shape and size of the particular shoe you are working on.

THE COURT: Does that relate to the portion of the claim that there was—is that 85?

MR. LYMAN: Additional power means, that claim.

THE COURT: Claim 85.

MR. LYMAN: It goes to the heart of both claims 6 and 85.

THE COURT: Before you go any further, Dr. Greene's position was that there was no additional power means, that all the power came from the cam and there was no additional power means; and your position here then is that because of the hand adjustment as the first move affecting the wipers that what you mean by additional power means the cam operation.

MR. LYMAN: That is right.

THE COURT: Transmitted through 188.

MR. LYMAN: Through this rod here. But that is not the point I am discussing with Your Honor now. I am not discussing the meaning of the claim, the question of infringement at all: I point out that in the McFeely patent in suit there is that preliminary adjustment for the wiper position and for the power stroke, and that in the defendant's machine (placing another chart before the court) there is a similar arrangement, as was pointed out yesterday. This hand wheel here which one turns and through these connections that we see here swing these wipers into a predetermined position, any position you want, that is, you can swing them in so they can conform to the contour of the shoe you are working upon, is a preliminary matter, and then comes the power stroke, and they do the power wiping over the shoe. Now, that is the meaning of these claims 6 and 85. Let me just read those claims to Your Honor once more:

> "6. A machine of the class described having, in combination, end lasting wiper plates for closing over a last bottom, manually operable means determinately to adjust the positions of the wiper plates to act on the marginal portions at the end of a shoe upper mounted on the last,"

that is that preliminary adjustment; and then means to effect the wiping operation. You see, one feature of that claim is this preliminary adjustment of the wipers.

THE COURT: Yes.

MR. LYMAN: Now the other claim dealing with this point, 85, similarly provides that feature. You see, it says: "In a machine of the class described, the combination with last and shoe positioning means", then "means for effecting a preliminary adjustment of the wipers to the contour of the shoe", and then "additional power means for subsequently operating the wipers".

Now, Dr. Greene has said that in the early McFeely patent 1,129,881 every element of those claims is present. He says that that is his principal reference, chief reference against the claim, and that in that early McFeely patent is found all elements of the claim, which would include this preliminary adjustment. And you heard Mr. Kath this morning, in comparing the present McFeely patent in suit with the earlier, or the Model A machine, say that they were the same except for certain other differences. He did not point out any difference in that respect.

Now would Your Honor be so kind as to look at the early McFeely patent 1,129,881, Figure 13?

THE COURT: All right.

MR. LYMAN (Indicating drawing): Here is the enlarged drawing of that patent which Dr. Greene produced and that will be convenient for you to refer to. As I say, the wiper mechanism in here (indicating), all this mechanism and that mechanism, is complicated, it is difficult to understand, and we have had a model built by which it can be explained to the court, so I will call the witness who made the model, Mr. Willhauck.

Thereupon,

Augustus D. Willhauck,

recalled on behalf of plaintiff, having been heretofore duly sworn, testified further as follows:

By Mr. Lyman:

Q111 Mr. Willhauck has already been sworn. Mr. Willhauck, you have made, have you not, a model representing the wiper—tacker construction of the McFeely patent 1,129,881? A. I had a model made under my supervision.

Q112 That was made in preparation for the trial of this case? A. It was.

Q113 I will ask you now to present it to the court and explain the operation. In the first place, I will ask you

if this model is made in accordance with the description of the patent 1,129,881 and in accordance with the figure of that patent representing it, Figure 13? A. It is.

Q114 In this model you have substituted a hand lever for the cam connection that is shown in the patent? A. I have.

Thereupon the model referred to was brought into the court room.

MR. TOULMIN: If Your Honor please, in order not to interrupt the examination or even the offering of this, it will be understood I have not had a chance to check it, and any objection I made may be reserved and we will go right straight on.

THE COURT: All right.

Counsel for plaintiff thereupon offered in evidence the model referred to, and the same is made part of this record as **Plaintiff's Exhibit No. 35.**

Q115 Go ahead and describe this model, please, Mr. Willhauck. A. These members here, one, two, three, four, five of them, are the tackers.

Q116 Are they actual tackers or dummies? A. Dummies, as far as to represent them. In other words, we haven't got any means of feeding or driving; we have omitted them for the matter of cutting expense. Here we have the wipers, these two members here, this member here and this member here.

MR. LYMAN: Your Honor, if you want to see it on the drawing, it is these (indicating).

A. Now (removing a part of machine) those are the corner tackers. There is the roller that is engaged on the rear portion of that corner wiper.

MR. LYMAN: Can you see, Your Honor?

THE COURT: Yes.

A. That is the segment lever which connects under these racks which are shown there. There is the equalizer which connects the two racks; the one at this side is the exact duplicate of that. There is the spring which keeps that corner tacker in engagement with this member here. There is the pinion which connects the segment lever with the rack. Now I have to take that up to show the construction. (Removing another part from machine): That piece is the member which is going down through that slot in the wiper, which isn't very clearly

shown in that view, I believe this is what is represented (indicating on drawing), that dotted line.

MR. LYMAN: That is what the patent calls an equalizer. May I interrupt to say that according to the patent there is attached under the tacker here this feeler member. It feels for the shoe and when it comes into contact with the side of the shoe, along with the heel band, if there is one there—then when it feels and hits the band things begin to happen which the witness will tell you.

A. Here is one here which is attached to that end tacker, which I can reach by going up in there (indicating another portion). Of course, that represents one tacker. There is a plunger which presses on this angular surface, which is that member right there (indicating drawing). This member here (indicating device) is the member with the pin projecting out of it, which is this member right here (indicating drawing). Here is shown strictly a pin (indicating drawing). There is a cam for operation (indicating device). That is so it can turn and not slide—right in there. That is that member there. That cam roller is fastened into the slide which carries this wiper.

By Mr. Lyman:

Q116 This (indicating on chart?) A. That is that element here (indicating device). You see, that is this wiper and it is carried on this member here, which is integral with it, it is a part of it. The other side of this, if you wish to see it, is the same.

THE COURT: No.

A. Only the opposite hand when you operate this member here.

Q117 That is the cam? A. The cam. You transmit your motion down through the rack. It turns this lever in that direction, rotates the pinion and forces this side wiper and tacker over the open end here inwardly over the shoe. The forward motion here also tends to force it forward on this support at the same time it is going in. I can illustrate that after I get this in, because I have taken out the connection which does that.

THE COURT: Could you operate it—leave it open and just hold it?

A. I shall try. I don't believe—

MR. LYMAN: —Point out to the court what would happen here.

Testimony of Augustus D. Willhauck (Recalled).

A. You have a plunger here (indicating) with this spring behind it. That hole runs all the way through. That plunger rests on this surface here.

THE COURT: And this (indicating) engages it and it goes to work; is that right?

A. It will hold that member in that position, which allows the unit to move inwardly. These springs are light, of course. They are not as heavy as the hood for the simple reason it is a model. We have no motor power to do it. Now when that is kept in that position there, it keeps this surface here in contact with that surface of the rack. When that feeler, which extends down through here and is fastened to this tacker, meets resistance it stops this member from moving forward, but this member here can move forward and it will cam this member here over in this direction.

By Mr. Lyman:

Q118 Against the pressure. A. Against the pressure of this plunger and the spring, and that is because the roller and the pin are attached to this one and if this is stopped it will retract this wiper and the end one. The action here and the construction here is identically the same; that is as far as it will operate. We have a member similar to this, only it is resting here and it is cammed off this way. When it starts back this is to pick it up again and throw the member into the proper position, and it is held there in proper position by the pressure which is applied by that spring and plunger and on that surface there.

MR. LYMAN: It is a little difficult to understand, Your Honor.

THE COURT: I will tell you, it is complicated, but I say I understand the operation.

By Mr. Lyman:

Q119 Are you through explaining from that point of view? A. From the construction.

Q120 Suppose you put it back and tell the court what happens, what the motion is in the operation on the shoe; and perhaps you can put a shoe in there so that we can see it act. (After witness replaced parts of machine): First I suggest that you tell the court now, describe orally the operation, the things that happen when the device is operating, and then put in a shoe afterwards to explain. Let him see those. A. The shoe is presented underneath there. The shoe is placed

under there with the proper mechanism to carry it and hold it. When it is in position the power, or the clutch is tripped and the power is applied to the machine. This member here, which is the end tacker and wiper, will move forward. Then through that system which was shown in there the power is transmitted to the side tackers and wipers and they will move inwardly over the heel seat. These two corner tackers and wipers, of course, the wipers must follow because they are attached to this and attached to the side wiper, and your corner tacker is kept in contact with that member by means of the spring which is constantly pushing it forward. Now when these feelers underneath here meet resistance, which is either the shoe or the shoe with the band around it, this motion forward and inwardly is stopped because it hits those, but further motion of this part then cams against that angular face that you see on this lever and the one in back and the one here and then due to the construction those wipers will move backwardly, this way here and that way there and that way there.

Q121 Off the shoe? A. Off the shoe, in a direction off the shoe. Then the whole mechanism returns to that starting position. Then it will come forward for a second operation and go through the same motions again and then come to rest and the tack will be driven and it returns to the starting position again.

THE COURT: You just mentioned two. A. Two wipes on this.

THE COURT: That is, on the original McFeely there are only two wipes.

A. As I understand, there are only two wipes on that cam.

THE COURT: All right.

MR. LYMAN: On the original McFeely there was first one breaking down wipe and then a second wipe, but in each of those wipes, the wiper having gone a certain distance comes back before the tackers operate. The second operation, the tackers operate, but the theory of this machine requires the wipers to be drawn back before the tacks are set.

THE COURT: On the original McFeely it requires the tackers to be withdrawn; on the McFeely patent in suit you have two complete wipes, then a half-wipe, and the tacks go in.

MR. TOULMIN: Just beyond the wiper.

MR. LYMAN: I think it is really astonishing that Your Honor can remember these things. I have the

greatest difficulty. But Your Honor is right. Now, have you something more to ask?

THE COURT: No. I just wanted to be sure.

By Mr. Lyman:

Q122 If you could put in a shoe there I would like the court to see those motions. A. You will notice that this end wiper here is practically in the center line of the holes of the wipers and these are covering up a portion of them on either side. I think I can get that shoe in there, but you must realize I am not going to wipe that heel seat. I could not do it. It is just simply to show it. I will place that shoe on that member there, which is just a pin to keep that shoe from being forced about. (Demonstrating): Now we will move this lever—

Q123 —Predict to the judge what is going to happen. A. The first thing these will move in freely, the wipers will go over the heel seat until these members which are pointed out will contact the part of that—

Q124 —The feelers? A. Yes. Both these members in the rear and the two side ones, when they meet that shoe and have taken all the play out that is probably in here, then your wipers will tend to—they don't tend; they will retract because there is nothing for them to do until they cam those members out of the way.

Q125 The tackers will not go any further after the feelers have made their contact? A. Yes.

THE COURT: The feelers control the tackers? A. They do. (Demonstrating): There is the start of your motor. About in there (indicating) those feelers have probably just contacted the shoe. I don't know whether you can see it or not, Your Honor. This one is a little off to the—

THE COURT: —I can see it.

A. I shall try and control that. They are practically set. There may be a little movement. When I begin to put on power these wipers will retract. If you will notice their position in relation to some particular edge you will see they will retract and the rear end will go back in that direction. Of course, when they go back and this goes back they are going to pull this curve, which is the corner wiper, back a little also. Those wipers are now moving off that way. If you will notice, the edge of that end wiper is back of the holes when this is moved back in the position this is there, and this is advanced. That is your first wipe. The machine then goes back

to that position (demonstrating). Now we come ahead again and we contact the shoe, get it in there solid, and those parts go this way and that way and that way. Now you are ready to drive the tacks in, and the machine returns to its starting position. That is the way that device will operate.

Q126 I will ask you, Mr. Willhauck, whether there is in that mechanism any preliminary adjustment whatsoever for the wiping position. A. There is not.

MR. LYMAN: That is a vital question, Your Honor.

THE COURT: Now you are talking about the hand adjustment in connection with 6 and 85.

MR. LYMAN: Yes, the adjustment to which these claims relate.

By Mr. Lyman:

Q127 These claims say "manually operable means determinately to adjust the positions of the wiper plates to initially position the wiper plates to act on the marginal portions at the end of a shoe upper." That is one of the claims, claim 6. And the other is claim 85: "means for effecting a preliminary adjustment of the wipers." Is there in the apparatus disclosed in this McFeely patent 1,129,881, any mechanism whatsoever for effecting any preliminary adjustment of the wipers? A. No, sir.

Q128 From a practical point of view what have you to say as to the merit of that mechanism that is shown in this early McFeely patent, this wiper-tacker mechanism?

MR. TOULMIN: We object, Your Honor. They are estopped to question the utility of their own patent. We have a number of authorities on that subject.

THE COURT: I think this; it may be a question for the court. He may describe the limits, the extreme limits to which this original McFeely could be used.

MR. LYMAN: I wanted him to. You will notice, Your Honor, that there is in this McFeely construction, this old patent 1,129,881, a retraction of the wipers after they have gone forward.

THE COURT: Yes.

MR. LYMAN: I call his attention specifically to that movement and ask him if that is an inferior or superior motion, whether that has practical advantages or disadvantages.

THE COURT: There is an objection coming up. I can see it.

Testimony of Augustus D. Willhauck (Recalled).

MR. LYMAN: I don't know why there is any objection made. My brother is saying, Your Honor, that this old patent shows everything there is, and his witnesses said that it has an adjustment which it obviously does not have.

THE COURT: I think that the witness may describe the operation, and then it becomes a question, of course, for argument as to the practicability. But I think the objection is well taken at this point.

MR. LYMAN: I should think the court would want testimony of a man like this as to whether that is meritorious or not.

THE COURT: You understand that I am just trying to keep this record as straight as I can and trying to prevent errors of evidence creeping in. As a rule in this court—I might as well tell you—if you insist on a position the court will let you have your way. Now it is up to counsel. If you think it is necessary we will let you put it in and give the other side an exception. We have no ironclad rule but we want the responsibility placed where it belongs, that is the only thing.

By Mr. Lyman:

Q129 In a mechanism such as is shown in this old McFeely patent and as is illustrated in your model, Mr. Willhauck, is there any danger of the machine failing to wipe properly on different kinds or sizes of shoes? A. I believe there is.

XQ130 Explain why.

MR. TOULMIN: Your Honor, so long as you understand my objection and he is going to put it in and I have an exception, I won't interrupt you.

THE COURT: No, I have made my position plain here. I say they have a right to ask the witness to describe the operation of the patent and what the machine will do under a given set of circumstances.

MR. TOULMIN: All right. No objection to that.

Q131 Go ahead, Mr. Willhauck. A. You noticed that when that device was operating there that you wiped over your heel seat and then after wiping it over what do you do? You turn around and pull it all back again. You do the same thing on the second one, which would have a tendency to give you a lasted heel seat.

THE COURT: There is a movement which permits it to rise.

MR. LYMAN: That is what the witness is saying, Your Honor.

THE COURT: I understand what he has just said is this. When you give a wipe and the machine stays in a fixed position and the wiper goes back, there is a tendency to pull the upper back with the—

MR. LYMAN: —that is right.

THE COURT: I understand.

By Mr. Lyman:

Q132 What happens, or what might happen in the case of a particularly wide shoe or a particularly narrow shoe, with that kind of mechanism? A. I believe—

MR. TOULMIN: —I do not want to interrupt, but I want to be sure it is understood I am objecting to this line of testimony and want an exception.

THE COURT: You are objecting to this witness describing what happens to the shoe?

MR. TOULMIN: No, I did not make myself plain. I am glad Your Honor mentioned that. I am objecting only to the extent that I don't think they can come in—assuming his explanation is correct; that makes no difference to me—and criticize their own patent and have testimony derogatory to their own patent. That is the basis of my objection. I have no objection to this description of the machine being put in. I am happy to have it put in because I think it is of advantage to the court and ourselves.

THE COURT: Just a minute, on that subject. What they are trying to show here now is the practicability of the wiping arrangement on the later McFeely over the early McFeely.

MR. TOULMIN: Yes.

MR. LYMAN: That is exactly it, Your Honor, the advantage of the patent in suit as compared with this.

THE COURT: Of course, this all becomes relevant, it seems to me, in view of Dr. Greene's testimony and Mr. Kath's, that the patent in suit was substantially identical in all the particulars in issue with the original patent in suit, and they are now in rebuttal trying to show that is not so.

MR. TOULMIN: All right, Your Honor. I am not trying to be captious.

THE COURT: No. You save all your exceptions. That is all right.

By Mr. Lyman:

Q133 Go ahead, Mr. Willhauck. A. May I have that question again, please? A. The question is—not to take time to repeat the question—would there be

conditions under which a mechanism of this sort (referring to Exhibit 35) would not act properly on wide shoes or on narrow shoes? A. I believe on narrow shoes you would have a very bad condition. I don't think you would get a retraction of your wipers or, if you did, you would get them wiped right off the heel seat, especially on the tackers.

Q134 Can you explain a little more fully why that would happen? A. Well, in a construction of this kind you have got to go to work and consider the smallet shoes that are to be done. Then you must also consider the bigger shoe that is to be done. Assuming we do consider a certain range of sizes of heel seats on that, and we cover that, we have to allow a condition there so we can get the biggest one in, and then we have got to be sure we are going to wipe that heel seat on the smallest one fully over the lasting margin. That means that wiper, to start, must be away off the small shoe, and we have only built into the cam enough of throw to get into a small one, in which as a fact we will get heel seats in some places that are going to be smaller than that kind. Well, the machine is going to go in only so far. We get only a pressure wipe over that small heel seat, which is smaller than has been taken for granted, and then when the wipers retract they are pulled completely off that heel seat.

THE COURT: I wonder if at this point a question would be in order. What provision did the original provide for various sizes?

MR. LYMAN: Absolutely none, Your Honor. There was no preliminary adjustment whatsoever in that patent.

THE COURT: Would that depend on the skill of the operator?

MR. LYMAN: The machine is supposed to automatically feel for the shoe and adapt itself to it, and there is no adjustment whatever. The operator can't do a thing about it; the machine will operate itself.

THE COURT: The feeler controlled the tacker adjustment in the orginal McFeely and it had to adapt itself.

MR. LYMAN: The feeler tells it when to stop.

THE COURT: I say, it was automatic.

MR. LYMAN: Yes, sir, and absolutely no preliminary adjustment of the wipers in that machine, and those are the elements of these claims we are suing on, and yet the expert witness for the plaintiff has said that this apparatus contains every element of those claims.

Testimony of Augustus D. Willhauck (Recalled).

THE COURT: You mean for the defendant.

MR. LYMAN: For the defendant, yes. You may cross-examine.

MR. TOULMIN: No cross.

Thereupon Mr. Willhauck retired from the witness stand.

MR. LYMAN: That is all we have with the witnesses today, Your Honor.

MR. TOULMIN: Your Honor, this man Reinhardt is due on the C. & O. train at three o'clock. It is three-fifteen. I am embarrassed he is not here.

THE COURT: We will recess until he arrives. That is your last witness?

MR. TOULMIN: That is my last witness.

Thereupon a recess was taken, after which the trial proceeded as follows:

MR. LYMAN: If Your Honor please, I should like to offer in evidence as a part of this model Plaintiff's Exhibit 35, the shoe upon which it has operated, and may that be marked Plaintiff's Exhibit 35-A?

THE COURT: Yes.

The shoe so offered and admitted in evidence is made part of this record as **Plaintiff's Exhibit No. 35-A.**

MR. LYMAN: I would also like to call Your Honor's attention to the fact that the early McFeely patent describes the operation of that device just as it has been demonstrated to Your Honor, pointing out that the tackers advance to the position determined by the feelers, that then they stay there and the wipers retract, leaving them there so as to be out of the way of the tackers.

MR. TOULMIN: I did not cross-examine.

Thereupon,

Louis Nicholas Reinhardt,

called as a witness on behalf of defendant, having been first duly sworn, testified as follows:

Examined by Mr. Toulmin:

Q1 Will you state your name, please? A. Louis Nicholas Reinhardt.

Q2 Where do you live? A. Sciotoville, Ohio.

Q3 Where do you work? A. At the Williams Manufacturing Company.

Q4 How long have you worked there? A. I worked there since April 1, 1931.

Q5 What do you do there? A. I am a machinist, service mechanic.

Q6 What are the nature of your duties? Explain briefly what those are. A. Service of break-downs and maintenance of shoe machinery in the lasting and cutting room.

Q7 Do you have anything to do with these heel seat lasting machines, one of which is in the hall? A. I do.

Q8 What is your duty in connection with those machines? A. In connection with that my duty is to see that it operates while I am on duty.

Q9 You handle one shift? A. I do.

Q10 And Schnabl handles the other shift? A. He handles the other shift.

Q11 Do you know anything about the heel band that is in this machine that is out here in the hall, or similar machines? A. You mean the leather band?

Q12 Yes; do you know what I mean by the heel band? A. Yes, sir.

Q13 Do you know what I mean by when the back of the band is attached by a wing nut or wing screw? A. Yes, sir.

Q14 Tell the court how long the wing nuts or wing screws remained on these heel seat tacking machines that are in the Williams plant. A. I can't be exact as to the date or dates that we used them.

Q15 Maybe you would like to tell us first before you answer that question about how long ago those machines came to the plant, if you recall. A. I would say about five years ago.

Q16 Go ahead and answer the other question, about how long those wing nuts or wing screws stayed on the

back of the heel band. A. They stayed on to my recollection about a year or two years.

Q17 Have you got any way of fixing that date, Mr. Reinhardt? A. No, I haven't, except that they were awful hard to keep in there, those screws were.

Q18 Were you called upon at any time to replace them? A. In fact, that was almost an hourly occurrence to replace those screws in that heel band. It seemed practically impossible to keep them in there.

Q19 Have you observed any difference in the operation of the machine with or without them? A. Absolutely none.

Q20 Do you know what I mean by the side strap that regulates the extent of the hold-down on the side of the machine, a metal strap associated with a spring? A. The spring lays right alongside of it.

Q21 You know what I mean by that? A. Yes, sir.

Q22 Does that appear on all four machines, or on only two of them? A. It appears on all four machines.

Q23 How long has that been on the machine? A. Ever since the machines were placed on the second floor.

Q24 When were they placed on the second floor with relation to the time they arrived at the plant? That is, was it shortly afterwards or a year or so, or when they came there? A. They arrved at the plant in crates, or a partially dismantled condition, and Mr. John Bender, who is a representative of the factory, started assembling them immediately, and I imagine he was assembling them for about a month or so, and they tried them for a while upstairs and then they were brought down to the second floor.

Q25 Do you know who put those side plates on with the springs? A. I imagine Mr. Bender did.

Q26 You don't know exactly? A. I don't know exactly.

MR. TOULMIN: That is all with the witness.

MR. LYMAN: No cross-examination.

Thereupon Mr. Reinhardt retired from the witness stand.

MR. TOULMIN: That is all we have until Dr. Greene comes back.

THE COURT: Then we will adjourn until ten o'clock tomorrow morning.

Thereupon an adjournment was taken until ten o'clock in the morning of the following day, Wednesday, January 25, 1939.

MORNING SESSION

WEDNESDAY, JANUARY 25, 1939.

Court met pursuant to adjournment, counsel being present on behalf of both parties.

Thereupon,

Dr. Arthur M. Greene, Jr.,

resumed the stand and testified further, on cross-examination, as follows:

By Mr. Lyman:

XQ320 Professor, you indicated by a rough diagram the other day the connections which should be added to the mechanism in Plaintiff's Exhibit 34 to indicate the way the member marked in Exhibit 34 "A" gets its motion from the cam. I have had an enlarged photostat of this Exhibit 34 made and sketched onto it what I understand to be substantially the connection which you indicated in your sketch. The part which I am pointing to I understand to be a rack which is driven from the cam and which imparts motion to a post, to which I am pointing, by means of a spring that intervenes. A. Yes, sir.

XQ321 And that is connected to this part which is marked "A" in the other drawing? A. Yes, sir. There are two springs and two rods.

XQ322 One behind the other? A. One beneath the other.

Counsel for plaintiff thereupon offered in evidence the photostat of drawing referred to, and the same is made part of this record as **Plaintiff's Exhibit No. 36.**

XQ323 Will you indicate on this Plaintiff's Exhibit 36 the member that is marked "A" in Plaintiff's Exhibit 34, using the same designation? A. I mark a member "A" in the Plaintiff's Exhibit 36, to which I have added a rivet head "R" and would say that as I remember the defendant's machine the part "A" is slightly different from this in that there is no lip formed as shown, but the whole member goes in. I do not believe that is important but I think there is that difference.

XQ324 Then would you please indicate by the letter "M" the rack? A. (Witness marked exhibit.)

XQ325 And by the letter "N" the spring which is interposed between the rack and the member "A" and

by the letter "O" one of the two rods which is visible, which is moved by the spring and connected with the part "A"? A. That is correct; yes, that is correct (marking exhibit).

XQ326 I think you said the other day that in the construction shown in the Hoyt patent (placing drawing on easel), Figure 2, there is shown an adjustment whereby the position of the member 156 with relation to the arm 158 may be adjusted. A. Yes, sir.

XQ327 That being a nut here which fixes that member as to which I point in relation to the other member. A. Yes, sir.

XQ328 And I think you said defendant's machine did not have that? A. That was my memory. If I could look at the prints I could correct that.

XQ329 Perhaps you could verify that by looking at the actual machine. A. I could do that, too.

XQ330 Would you do that? A. Yes, I will: (After returning to court room and examining a sheet of photographs): There is a screw on the side and there are two members which run together so this nut may be adjusted relative to the arm, making it longer.

XQ331 In other words, the defendant's machine does have that? A. In equivalence of motion; not by the same method, however.

XQ332 I would like to draw your attention to the Copeland patent 244,714. You said, I think, that the Copeland patent and the early McFeely patent 1,129,881, each of them show all of the elements which are included in claims 6 and 85. Now one of those elements is a means for effecting a preliminary adjustment of the wipers before the power stroke takes place, which the operator does as a preliminary step. A. Yes.

XQ333 In your illustration purporting to represent the construction shown in the Copeland patent, Defendant's Exhibit J, you have indicated a certain member as what you call "Wiper Adjustment," designating following that legend with the letter C-1. Do you find anything in the Copeland patent that says the mechanism there shown is adjustable, the wiper mechanism? Is there any adjustment for the wiper? A. The Copeland patent—

XQ334 —Could you answer "Yes" or "No" to that, Professor, and then explain? A. I find preliminary adjustment.

XQ335 You find it mentioned in the patent? A. Yes, sir, and shown in the picture.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ336 Where do you find it mentioned in the specification of the patent? A. On page 2, as I read in my direct testimony, beginning at line 102:

> "The heel-lasting devices, being secured at the end of the sliding plate C, are by the movement of the toe-lasting plates inwardly caused to assume, automatically, the proper position which the apparatus should bear at the commencement of the lasting—that is the upper holding devices are thrown forward and the folding plates are opened."

XQ337 You regard that as a teaching that there is an adjustment of the wipers which is to be made manually by the operator? A. Yes. He moves the plate A and its associated parts into the position for beginning this stroke before he or the machine throws it into the wiping action.

XQ338 The plate A? A. Yes, sir.

XQ339 Where is it? A. Down at the bottom. It is the revolving plate mounted on the lower casing through the pivot a^3.

XQ340 What this operator does, is supposed to do in this machine, Professor, is this, according to the description, isn't it? He first takes this shoe to be lasted and puts it upon this jack. Then he pushes it forward until it engages a certain steel spring clamp, which is designated in Figure 3 as two-part construction, one at the right-hand side and one at the left-hand side, and which are designated B and B^1? A. Yes.

XQ341 Now, holding it in that position, with these two springs supposed to clamp the two sides of the shoe, then he takes, according to the description, his pincers and pulls up the upper in between the clamp and the shoe, so that the clamp will hold the edges of the upper there; is that right? A. He pushes the whole thing in.

XQ342 Just a moment. Before he pushes the whole thing in he has to use the pincers to pull up the upper. A. Yes, he definitely describes it.

XQ343 He definitely describes it? A. Yes.

XQ344 Then having pulled the upper with his pincers in between the clamps and the shoe, according to the description he then moves the shoe forwardly and the part at the center of Figure 2, on which that standard rod of d in Figure 1 and the other apparatus moves forwardly, slides in the machine as the shoe pushes ahead. A. No, that part with the two suspended

arms b, b on which the metal spring B is attached and the base with the uprights move together relative to the parts c^1, c^1 which are attached to the standard c^4.

XQ345 I think I understand your meaning. Referring to your illustration perhaps we can explain it, Exhibit J. The part that you have marked in pink there is the slide upon which are mounted this rod, this vertical rod and the wipers, which are marked in green, and the tacking members; is that right? A. Yes.

XQ346 And also the part that is marked on your chart "Support for Shoe Clamp"? A. I see; yes.

XQ347 And as the operator forces the last ahead the pressure of the last upon that member carries it along with relation to the fixed elements c^1, the green elements on the right and the left, and because there are rollers on those green elements with which the wipers, as they travel along, contact, when they come in contact the wipers close in? A. Yes.

XQ348 That is the action described? A. That is correct. The reason for entitling this "Wiper Adjustment" is the fact that in this machine the adjustment is made by moving the inner part rather than the outer part. That is, preliminary adjustment is obtained by relative motion between parts and of course the term "Wiper Adjustment" is used in this figure to indicate that, that is, there is wiper adjustment by relative motion between cooperating parts.

XQ349 That is, you say the wiper adjustment is made by the operator shoving the shoe forward? A. Yes, sir, manually, or predeterminately.

XQ350 That is why you call these green elements at the right and left, c^1 of the patent drawings, wiper adjustments? A. Yes, sir.

THE COURT: I wonder at this point if we could find out if you would get the same adjustment every time or would it depend on the pressure of the operator?

A. It depends on the shape of the shoe, Your Honor. If the shape of the shoe is the same you would get the same result, in my opinion.

XQ351 What earthly reason is there for any adjustment at all in this device? According to the theory of the patent this shoves the shoe along until it has come to the position which is right; as he looks he can see it with his eye, as you can see on Figure 4. Is that right? A. He—

XQ352 —Is that so, Professor? A. He stops it when he has this adjustment made, right.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ353 Then the wiping is complete at this time? A. He then completes the wiping.

XQ354 In other words, all he does, according to the theory of this thing, is to take his shoe and shove it in until the wipers have gone to the point where he wants them. A. That is not his statement in the patent. His statement in the patent is definitely that "the heel-lasting devices, being secured at the end of the sliding plate C, are by the movement of the toe-lasting plates inwardly caused to assume, automatically, the proper position which the apparatus should bear at the commencement of the lasting."

XQ355 Will Your Honor look at the passage the Professor is reading from, page 2, line 102? Now I suggest, Professor, for your consideration, that this is what that passage means. According to the statement in this specification, the description here, you have got two members, each of them rotatable. Look at Figure 1, Your Honor. According to Mr. Copeland, we want to do toe lasting and we want to do heel lasting on the same machine, so we have got our last,—You correct me if I am wrong. A. Yes.

XQ356 We have got our last mounted on a standard at the left, which is rotatable about a pivot, which is also slidable. Then we have got on a standard e' of this bed, which has a heel lasting device at one end and a toe lasting device at the other end—but the ones that are shown here, the only ones that are specifically illustrated are the toe lasting device, because we have now got a toe in place there, and the specification says there is the same kind of thing at the other end equipped for heel lasting, is that right? A. That is right.

XQ357 And the patentee says that after you have lasted your toe, as shown in this Figure 1, then you swing your whole last around so as to present the heel to the apparatus, and then you swing the whole bed around so as to present the heel lasting device to the heel. Right? A. That is a correct statement. I am not sure that the patent puts it in those words, but that is the equivalent of it, yes.

XQ358 And what he says in the passage you have quoted at page 2, line 102, is simply that if you have used your heel lasting devices, pushed in your shoe—No—that when you have used your toe lasting devices and pushed in your shoe, thereby that automatically pushes the heel lasting devices out on the other side where they are available for the heel. A. That pushes them out.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ359 Isn't that all it says? A. No, that isn't all it says. The heel lasting devices which, as you have said, are the equivalent of the toe lasting—The heel lasting devices are caused to assume automatically the proper position to begin the work.

XQ360 Now, Professor, do you mean, as the Dean of the Engineering School at Princeton University, to tell this court that that is a preliminary adjustment? A. I do.

XQ361 By the operator? A. I do.

XQ362 For the purpose of— A. —Automatically—

XQ363 —Of manually adjusting the position of the parts prior to the working stroke? A. Automatically and by hand, because he does this pushing by hand.

XQ364 And you know perfectly well, Professor, don't you, that there is no reason whatever why there should be any such adjustment in that machine, for the reason that the operator, according to the theory of it, simply puts in his shoe and keeps pushing until the wiper has come to the proper position, when he stops? A. It is automatic. He pushes in. It is automatic.

XQ365 Then there is no reason for any preliminary manual adjustment of the position of the parts, is there? A. There must be. It is manually placed in order to begin the wiping. The English is right there.

XQ366 Excuse me, sir, but the English is not, as I read it, right there. I see nothing in the English language that justifies that statement, and I am frank in saying so right here. Let us picture the operator who is handling this machine of Copeland. He is going to take his shoe. He has to put one hand on the shoe, doesn't he, to jack it forward so it will compress those clamp springs. A. Probably.

XQ367 He must, mustn't he? A. There may be other ways of doing it.

XQ368 What other way would there be of doing it? Rest up against it with his stomach? A. No. The whole device here, and his words indicate, that he is after a principle, and he hasn't given details. I am not sure that there could not be a—

XQ369 —I am asking you just what the patent shows he contemplates having. A. One skilled in the art probably handles it by hand in this picture, but not of necessity.

XQ370 We are talking about what the patent shows. So the operator has his shoe held in one hand and pressed up against these clamps while he manipulates

his pincers to pull up the upper. Am I right so far? A. Probably.

XQ371 He has got to have two hands working at that job. Now what prevents this slide going back when he is pushing it up hard enough to operate this clamp? It is free to move, isn't it? A. There is nothing shown. Nor is there anything shown which will hold this to its position. The patent is one in which other things probably have been added, but there is nothing shown here other than that which would happen as you say, probably.

XQ372 We will just confine ourselves to what this patent shows, Professor. A. To one skilled in the art.

XQ373 To one skilled in the art, yes, sir. This operator, pressing the shoe up with his left hand against the clamps and trying to move his pincers, after the pressure has been applied will find his shoe moves forward and the wipers close before he has got the upper pinched up there; isn't that right, as the apparatus is shown? A. Possibly.

XQ374 Furthermore, if you look at Figure 4 of this patent the whole movement of this standard, rod d, about which these wipers D are pivoted, is imparted by the pressure of the shoe last against it; isn't it? A. Yes.

XQ375 So there is no relative motion between the rod d and the shoe last; they move together? A. They move together.

XQ376 The result is then, isn't it, that when these wiper arms swing together as shown in Figure 4, they will have a "V" between them? Your Honor sees that "V". That isn't wiped at all. A. The end wipe.

THE COURT: That is right in the center of the heel.

A. The relative motion is inward around the pivot d which, as shown in Figure 1, passes through a hole in the frame to which the clamp is attached, and the only possible end motion that might occur there would be the yielding of the springs f, f, owing to the pressure required to move the base, so that small amount of motion would be end motion also.

XQ377 That would be insignificant. A. Not insignificant but slight.

XQ378 In other words, you are bound to have in that kind of a device this unwiped V-shaped element at the end of the last? A. V-shaped element with which there may be a slight amount of lengthwise motion.

XQ379 In your figure representing this patent, Exhibit J, I don't see that you have left any "V" there. It

looks to me as though you had shown the wipers cooperating in such a way that the end of the last is wiped over properly. Is that right? A. No. The figure which is colored green is to color the parts which cooperate with the wipers and cause the wipers to close. The picture is an isometric drawing which was intended to bring out the general conformation of the parts of the tackers arranged in stationary relation with the wipers; and then those which cause the wipers to take the proper position at the beginning of the motion are shown as the wiper adjustment. This picture, of course, cannot replace the showing of the other because you could not in one figure get all that these four figures show.

XQ380 The reason why the structure as shown in the patent, referring to Figure 4, for instance, necessarily leaves unwiped a V-shaped piece of the lasting allowance or the upper at the end, is because there is no bodily movement between the wipers and the last. A. Yes, sir, that is right, no lengthwise movement.

XQ381 Have you borne in mind when you said that this Copeland patent embodied every element of claim 6 of the McFeely patent in suit that one of those elements of claim 6 is means to effect bodily and swinging movement of the wipers, both bodily and swinging movement of the wipers with relation to the last? A. There is that slight bodily movement, due to the spring.

XQ382 You mean in the Copeland device? A. Yes. What was your question? I thought you referred to claim 6 of McFeely.

XQ383 I asked if you had borne in mind that requirement of the claim. A. Yes.

XQ384 I wonder why, Professor, if there was any such slight bodily movement contemplated by the inventor Copeland, why he didn't happen to show it when he drew his Figure 4. A. I don't know.

XQ385 I would say perhaps the answer is there was no such movement intended. Isn't that so? A. That is your interpretation, sir.

XQ386 Wouldn't it be your interpretation, too? A. Not entirely.

XQ387 Continuing a little further with reference to this—what shall I call it—this lasting machine, supposed to be an automatic lasting machine, of Copeland? A. This is a laster and tacker combined.

XQ387 This is supposed to be an automatic laster and tacker? A. If "automatic" means that parts

cooperate together in a predetermined way, it is automatic.

XQ388 Let us continue a little further. In the bed machines that we saw you saw the operator of the machine would repeatedly move his wipers back and forth over the last. A. In those flat machines which the trade calls "bed" machines I saw that action.

XQ389 He repeatedly moves the wipers back and forth to get a proper job? A. Yes.

XQ390 In the machines with which we are here dealing the defendant's machine and the McFeely machine, you have two wiping movements, don't you? A. Yes.

XQ391 What would happen if our friend Copeland—if the operator of his machine undertook to give two wipes? A. Unless—

XQ392 —Let me repeat it. Let me tell you what will happen and see if I am right. First he would manipulate his pincers, holding his shoe in his left hand, manipulating his pincers with his right hand, unless he was left-handed. Then he would shove in the shoe and get one wiping movement. Then he would draw it back, and he would have to go through the same movement again and pull up the upper with his pincers again before he could get a second wiping. Is that right? A. I am not a shoemaker of 1881, but as I look at it he should, in my opinion as an engineer, force the shoe down before he retracts it. Then I do not think there would be an additional use of pincers because the original pinching should have pulled it up properly.

XQ393 This rod upon which the tackers and wipers are mounted, the rod d, Figure 1, moves in this slide which you have marked pink on your figure; mounted in that slide, it moves. A. Yes, in the extension marked b.

XQ394 What is to prevent that rod, as it moves in, from hitting that standard c'? A. That I do not know. And of course I can easily see as an engineer and one skilled in mechanics that it would be a very simple thing to have the bed so arranged that the part marked b would be limited in its motion or that the base c could have a slot in it. That is a more detail which anyone skilled in mechanics could care for. As shown in the picture, apparently there would be an impact if pushed in any further.

XQ395 That would indicate that this scheme wasn't very carefully thought out, wouldn't it? A. I think Mr. Copeland, Mr. Brock and Mr. Crist must have been

very able men to design the machines which they did at this time, not only this patent.

MR. LYMAN: I ask that answer be stricken out, Your Honor.

THE COURT: Yes. The motion will be granted.

By Mr. Lyman:

XQ396 Please confine your answers to my questions, Professor. This inventor contemplates, Copeland contemplates that this rod d shall rise and fall in order to do the tacking; is that right? A. That is correct.

XQ397 And yet he contemplates that that rod shall be actuated by a treadle or a cam, doesn't he? A. That is correct.

XQ398 Does he show any means—confine your answer to my question—does he show or indicate any means whereby you can operate a rod or a lever that moves from one position to another by a treadle or by a cam? A. He does not.

XQ399 Will you look at page 2 of the patent to Copeland and notice this language at line 22:

> "The folding plates are provided with a series of holes or nozzles, e, which are arranged a little back from the edge of the plates, and in these holes or nozzles a corresponding series or group of drivers, E, are arranged to be reciprocated by any suitable means; and we describe as one the attachment of the drivers to the hinged blocks e', and the use of the rod d, in connection with a treadle when operated by foot-power, and a cam or lever when operated by motive power, for reciprocating said blocks."

Now please tell me on the drawing where the hinged blocks e' which, according to this specification are to be reciprocated, are. Where do you find the 'e' on the drawing? A. On Figure 2 we note the e' under the lower edge of that figure and the lead line appears to go into the corner of the wiper.

XQ400 In other words, what this patent is saying is that the wipers have a vertical movement, isn't it? He says the wipers reciprocate vertically, doesn't he? A. The wording states that the drivers are marked in Figure 1 as small vertical rods, and indicated also in this Figure 2 as black circles. It states that these "are arranged to be reciprocated by any suitable means; and we describe as one the attachment of the drivers to the hinged blocks e'."

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ401 You have told me that the hinged blocks e' are the— A. —That the hinged blocks e', which refers to the wipers—

MR. TOULMIN: —Let the witness finish.

A. —To the wipers, and the connection in the picture indicates that these drivers extend through those blocks.

XQ402 Then the tackers are raised by raising the wipers, are they? A. I do not think so, in my opinion. You must have cooperation, because Mr. Copeland designed a method of feeding tacks on strips of paper, as indicated in the picture, and in order to loosen the tack from that strip of paper and the guide there must be motion between the driver and the tube. So that it cannot mean that the wipers are raised and then forced up.

XQ403 That is what it says just the same, isn't it? A. I don't think it really says that.

XQ404 You think it doesn't mean what it says. I guess that is your— A. —No. If you put on the interpretation that it means that it is connected, they have to move together, then of course that is an inoperative affair. So it can't have that interpretation anyway.

XQ405 This is an operative affair, this Copeland, isn't it? A. It is operative. It is the basis of many—

XQ406 —I don't care about the basis. I am asking you if this is an operative device, this thing as shown in the Copeland patent. A. I believe it is.

XQ407 Practical? A. Practical.

XQ408 Would you undertake to work it? A. As standing, or as shown in the patent?

XQ409 Yes, as shown in the patent. A. Yes, I would work it.

XQ410 Do you think it would be better than a bed machine? A. For lasting I do not think it would be better, but for lasting and tacking I think it would be.

XQ411 What means is shown in the patent, by the way, for preventing this jack from swinging around and the standard from swinging around when you are trying to hold it with the shoe in one hand? A. Mr. Lyman—

XQ412 —What means are shown, is the question. A. There are no means shown.

XQ413 I wish you would look at the McFeely patent of the prior art, 1,129,881, particularly now with reference to the heel band adjustment mechanism that it discloses. I think you referred in your description to Figures 18 and 19. Figure 18 does not show any heel band at all, does it? A. No, not as a separate entity.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ414 Figure 19 does show a heel band? A. It does.

XQ415 How is that band supported according to the description of the patent? A. According to the drawings of the patent the end members—

XQ416 —Just a minute. He referred to Figure 8. A. Referring to Figure 8, Your Honor.

THE COURT: Yes, I have got it. You asked about 19.

A. Yes, sir, I had to go back to this because 19 is in a way a reproduction of this. That is, there are grooves in member 51 and grooves in the band 58 which support the band and keep it from dropping down.

XQ417 There are four cords shown here, marked 50 in Figure 8, which run around these members 51— Referring to Figure 19, we can look here. You had better keep Figure 8 before you, Your Honor.

THE COURT: I will.

XQ417 Above these bands, each string pulled at each end and one below the other, the four of them, which fit in grooves in these loosely held members called swiveled heads 51. Right so far? A. There are members, not loosely held but members 51.

XQ418 They are called swiveled heads? A. They are on swivels, yes.

XQ419 Those bands, those four cords are supposed to go around back of the heel band, one above the other. A. Yes.

XQ420 How is the heel band held to those cords? A. Merely by means of the grooves, and as this is a patent to which a swearing was made that it was operative, I take it that the holding in of those parts, the grooves on the cooperating parts there would support it. There is a definite pulling out of the band when the heel is removed.

XQ421 Yes. The band, in other words, is just loosely inserted in those cords. When your shoe is pulled out the band comes with it. Right? A. The band comes out due to the tension on the strings.

XQ422 Springs would tend to pull these cords out and force the band right out after the shoe, wouldn't they? A. Yes, that is right.

XQ423 By the way, where do you find those grooves, Professor? A. I don't believe there is any statement in the patent itself, Mr. Lyman.

XQ424 If you will look at Figure 2 over in the left-hand corner of the figure, you will see those cords, one, two, three, four, on each side of the heel band, in sec-

tion, but you don't see any grooves in there, do you? A. You don't in that figure.

XQ425 You don't on any figure, do you? A. Yes. I called attention to Figure 8, in which I believe I definitely saw the grooves on the sides.

XQ426 At all events, there is no support provided in this machine for the heel band except as the shoe forces it; when the shoe is in place it forces it against these cords. A. There is no detail, as I recall it, of the part which is marked orange exerting the pressure adjacent to the bight, and it might be possible that on those there is a lower clip. It is not shown in the patent, anyway, and I don't know of it, but it is perfectly possible to have that there, and of course in dropping down it should be there.

XQ427 We are dealing not with something that might be there but with what is shown in this patent. A. That is correct, sir.

XQ428 That was one of your chief references, I believe, to the claims of the patent in suit, which call for, as Your Honor remembers, the sliding connection, the sliding supports that are provided for the heel band for its longitudinal adjustment, being these clips here (indicating on model)—if somebody will put this in here. (Thereupon the adjustment was made on the model as counsel directed, and the court and counsel examined the exhibit).

XQ429 So that the heel band moves along, slides along with reference to its supports, keeping its position, with no constriction—just freely moves forward. You don't find anything of that sort in this previous McFeely patent, do you, Professor? A. Oh, yes. I assume the McFeely patent to be an operative machine when the patent was applied for, and in my opinion those are the side supports.

XQ430 Which are the side supports? A. Toward which the band must move when the back stop is moved inward, in my opinion.

XQ431 You are assuming there must be something in the patent that is not there; is that what you mean? A. No. I am taking the patent as illustrated by all of its drawings and all of the specification, which I can read.

XQ432 You have just told me there isn't any support for the heel band except as the shoe presses it in against those cords. When the shoe is taken away the heel

band comes with it. A. I have stated my position, Mr. Lyman.

XQ433 Will you turn to some of these other patents relating to this subject matter? And you mentioned four, Professor, in addition to the McFeely prior art patent, and they were three Brock patents and one Cavanagh. Will Your Honor turn to one glance at those patents?

THE COURT: Will you give me the numbers?

MR. LYMAN: Brock 601,935. If Your Honor will look at Figures 7 and 8 there you will see a chain. It looks like a sprocket chain of an old bicycle embracing this heel band. You will see it in each of those figures. A. Yes.

By Mr. Lyman:

XQ434 In each of these three Brock patents, 601,935, 1,002,818 and 1,188,616, and in the Cavanagh patent 1,130,142, you have a type of construction in which there is a chain provided like a sprocket chain, which is attached to the heel band and supports it. Am I correct in that—Brock 601,935? A. And the next one after that.

XQ435 1,002,818? A. Yes.

XQ436 Brock 1,188,616? A. Yes.

XQ437 There you see it at Figure 10? A. And Cavanagh.

XQ438 Cavanagh 1,130,142, there you see it in Figure 2? A. Yes, sir.

XQ439 In this chain type of heel band supports, any adjustment that there may be provided in any of these patents takes the form of a pull of the chain forward or backward by the operating parts, and the heel band goes with it; is that right? A. Yes, it must go with it if you move it up.

XQ440 Do you find in any of those cases the sliding arrangement that is shown in the patent in suit? A. The best one is the Brock, which is similar to the others. If Your Honor will turn to the Brock patent 1,002,818, and first look at Figure 2 on Sheet 1, you will find that the support from the terminal member of the band is through a clip 275 and there is no riveted connection.

XQ441 You mean the support from the chain? A. The support from the chain is by a clip turned up.

THE COURT: 275?

A. 275 is the end of the clip on Figure 2 right at the end of the page. 274 bends around and comes up to 275,

and in this picture there is no rivet between the band and the support, the little screw there being the part which attaches the clip. Then if we go to the Figure 3 on the next page we immediately ask, Why is there a clip at the end rather than a rivet? And of course, Your Honor can clearly see that the reason for this is that as you bring the ends closer together by the adjustments on this, either at the bight or at the side, there must be a difference in the length of a circular arc of different radius, and for that reason, to prevent crimping, Brock has provided in this and all of the others which have this end clip for the slight movement which is necessary, due to the change of configuration. If it were not so he would have riveted the ends, or should have riveted the ends.

XQ442 In the first place, there is no difference, really, in the action of this machine as shown in this patent as compared with any of the others, is there? It doesn't make any difference as far as the action is concerned whether that heel band is supported by clips depending from this chain or actually riveted to the chain, as far as what it does in the movement. A. Oh, yes, there is great difference between them because there would possibly be a crimping and a spoiling of the leather against the last. You have got to have motion, just as Mr. McFeely in his early patent 1,129,881 has it, and also the McFeely patent in suit.

XQ443 So you say this clip is used in this Brock patent 1,002,818 because the intention is to move the device longitudinally, adjust it longitudinally? A. To care for any motion which is necessary because of the change in radius of the heel or the shape of the heel.

XQ444 In that particular patent there is no adjustment at all, is there, longitudinally? A. I beg pardon?

XQ445 There is no adjustment of the heel band provided for longitudinally in that patent, is there? A. There is a set screw, Mr. Lyman, which is shown in Figure 3, which holds in the device, and of course there is an adjustment. There is no manual adjustment. By putting shims behind the edge you could get a slight adjustment. This is not the same as the other Brock patent, in which there is a bodily possible movement. In this one it is not manual; in the other one it is manual.

XQ446 What does this patent explain is the reason why, instead of riveting the band to the chain, as was the usual case, usually done, he connects it by these hooks

to the chain? I call your attention to page 2 of the patent, line 24. A. Beginning at line 24, which is not the complete story—

THE COURT: —Do you want to go back to 19? That might start in there.

A. Yes; it would be better to start there.

XQ447 All right. A. (Reading): "Preferably the lower member will include a hook to extend under the lower edge of the band and, it may be, upwardly along the inner side of the band a short distance. In the latter event the band may be recessed to receive the tip of the hook. This mounting permits the ready removal of the band without disconnecting any of the parts, and allows the heel band to follow the shoe in any upward movement of the last, such for example as the usual lifting movement to compress the overwiped upper between the last bottom and the lower face of the wipers."

XQ448 That doesn't say anything about the purpose which you assigned to it, does it? A. It doesn't say anything about that.

XQ449 Now turn to the Cavanagh patent 1,130,142, please. That is another of these four patents which you cited as the closest references against these heel band adjusting claims of McFeely and as having everything contained in those claims. A. I think there was another one of Brock, but I will turn to this one.

XQ450 In this Cavanagh case is there means provided for a longitudinal adjustment of the heel band? A. In the same way; not manually adjustable but they could be changed.

XQ451 And in this case the depending clips are actually riveted to the heel band so there can't be any motion? A. That is right.

XQ452 Do you regard that as inoperative? A. I think it would possibly cause crimping.

XQ453 Did you ever see it done? A. No.

XQ454 You don't know as a practical matter then that they always are riveted? A. I don't believe they are.

XQ455 Would you be surprised to learn that? A. I do not believe as a practical matter that they always are, because Mr. Brock shows so many otherwise.

XQ456 Let us leave the Cavanagh patent for a moment and look at the Brock patent 1,002,818, which you have just been dealing with. I would like to know what happens to those members 272 shown at Figure 3 when

pressure is put on the band, when clamping pressure is put on the band. A. What happens to the member 272, Figure 1—

THE COURT: —No, Figure 3.

XQ457 What happens to those (indicating on witness' copy of patent) in the operation of this device? A. As the rod, not numbered, is forced inward to a crossbar, the members 282 are forced toward the top of the picture, and then the pivot, the outward motion of the pivot causes the member at the end there, of which 272 is the extremity, to turn on the pivot, and at the same time the wedge marked 284 causes also an inward motion to take place. This point 272 of course can be adjusted by the jam nuts to take different positions, dependent on the shape of the last. This member 272 moves inward and outward, upward, because of the configuration of the body around which it is being pressed; that is, the point 272 has two motions, an inward motion and an upward motion.

XQ458 And the end of the chain goes with it, proceeds in those motions? A. Yes, and going along the edges, as every chain would do, it would produce a pressure normal to the chain and it would finally end at the middle point, where the pressure would be in the longitudinal direction of the last.

XQ459 And the movement of the ends of the chain carries the heel band along with it? A. Yes.

XQ460 Will you look at the McFeely prior art patent and explain the action of those swiveled heads? Look at the patent 1,129,881, Figure 19. Tell us, if you please, what happens in the action of this device when the clamping pressure is put upon the heel band? A. In Figure 19 of patent 1,129,881 the equalizer 60 is attached through an unyielding connection back to the cam face, which causes its motion, and the side racks 59 are moved. The back stop, painted red, is held in position, adjusted to the position desired, and then the extremities of the bell crank levers 54 come inward and if, Your Honor; we should draw a radial line from this pivot down to this point, the motion of that point is inward and backward. I am referring to the pivot 53, but because of the action of this spring, which is the yielding member in this case, as required by this action, the motion of the spring is to then move the member between the center 53 and the end 51 to produce a motion that will bind and hold the band. At the same time the springs on the side adjacent to the bight force inward and produce pressure at that part of the band.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ461 Then the motion of the part 51 is a rather compound motion; it starts inwardly. A. I think so, sir.

XQ462 Then— A. —Downwardly, probably, due to the spring action inside here.

XQ463 Downwardly with reference to the picture, or that is toward the operator in the actual machine? A. Yes, sir.

XQ464 Inwardly and then downwardly? A. Yes, sir.

XQ465 That is due to the yield of the spring pressure? A. Of the spring pressure.

XQ466 In this early McFeely patent 1,129,881, the inward position of the hold-down at the beginning of the cycle of movements is below the plane of the wipers; is that correct? A. That is correct.

XQ467 And the first wiping movement takes place while it is still below? A. That is right.

XQ468 Then it rises for the second wiping? A. That is right; according to the specification he describes it just in that way, Mr. Lyman.

XQ469 In the McFeely patent in suit and in the defendant's machine and the like, the initial position of the hold-down is substantially in the plane of the wipers; am I right? A. No. The defendant's machine which I have observed shows that before the band closes in by action of its cam the hold-down has positioned the last and upper for the first wipe and therefore it is below the plane; otherwise it couldn't rise about one thirty-second of an inch, as was seen when the machine operated Just before the second wipe took place it had to be below in order to accommodate that one thirty-second of an inch rise.

XQ470 Perhaps I am not literally correct in speaking of the initial position as being in the plane of the wiper in either case, but the first motion of the hold-down in the patent in suit and in the defendant's machine is to to go from an upper level to a lower level, isn't it? A. Oh, yes; yes.

XQ471 In that respect the motion is different from the old McFeely machine? A. No. The early McFeely machine does the very same thing. The initial motion is to put it downward below the level of the wipers.

XQ472 Let us begin again. Isn't this true of the old McFeely patent. The hold-down, in its initial position at the beginning of the cycle, is below the level of the

wipers. A. I will have to read that and see, Mr. Lyman. I am not sure.

THE COURT: Is this with reference to claim 42?

MR. LYMAN: Yes, sir.

THE COURT: Are you reaching now the upwipe feature of the McFeely patent in suit?

MR. LYMAN: No.

THE COURT: I did not know the object.

MR. LYMAN: I don't know that there is much object anyway in going into that.

THE COURT: I was wondering why.

MR. LYMAN: I think perhaps, in order to shorten this, I can put it in a shorter form to our own witness, because I know he can do it without looking at the patent.

THE COURT: All right.

By Mr. Lyman:

XQ473 Just answer that question and we will pass to something else. A. (Witness examines patent.)

XQ474 Professor, don't trouble to read any more in the patent. A. This may cover the point you want to make. I am quoting from page 5, line 124 (Reading):

> "It is intended that the first or essentially breaking down advance shall take place with the shoe in a lower position than the second or wiping in and ironing down movement. Accordingly, means for controlling the vertical position of the shoe is provided and is connected with means for changing that vertical position automatically between the two actuations of the upper overworking means. The shoe bottom rest 100 is formed as shown in Fig. 8 to contact with the shoe bottom at a plurality of points including points at opposite sides of the innersole near the heel breast line to position the shoe as to transverse inclination of the heel bottom and to clamp the insole down firmly upon the last bottom near its opposite edges. This bottom rest is movable endwise in a guideway formed in the lower face of a block 102 and is pressed forwardly therein by a spring 103 against an adjusting screw 104. The block 102 is guided for vertical movement in the machine head and has rack teeth engaged by a pinion 105 coupled by a rack rod 107 to a lever 108 which is fulcrumed at its upper end and is held by a spring, 109, acting on the rack rod, against a cam face 110 formed on

the front end of the cam block 65. This cam face is formed with relation to the cam track 75 for the bottom rest to be raised between the first and the second advance of the wipers so that the shoe may come up to the level of the wipers before their second advance, whereby the upper is caused to be firmly wiped or ironed down upon the last bottom to form a firm, smoothly lasted heel seat. The lifting of the shoe is effected by the strong spring 45 located in the jack lifting mechanism which is put under tension when the jack is locked up. The cam face 110 is also formed to depress the bottom rest again after the tacks are driven, as will be described, and before the wipers are finally retracted. This is to depress the shoe from the wipers and to relieve the pressure of the wipers and prevent them from dragging over the lasted and tacked upper in their final retraction."

It does not state what the initial position is, and this patent to McFeely 1,129,881 does not give any cam track, so that the preliminary position of that hold-down is not shown.

XQ475 But the first motion of the hold-down is an upward motion. A. Not necessarily. It is between those two wipes, but what has happened before that is not definitely given.

XQ476 Did I understand you to suggest, Professor, that the McFeely patent in suit indicates that there is a retraction of the wiper just preliminary to the tacking operation? A. The wording of the patent is that, but there is no retraction. As I explained to the court, the last motion, the half motion which goes inward carries both the tackers and the wipers together, the tacker in advance of the wiper, so it stops and the tacks are driven. The wording of the patent speaks in the specification as if there were a withdrawal. It means only this half-stroke, and during that last half-strike—

MR. LYMAN: —The passage to which the Professor directed attention is on page 6.

THE COURT: That is of the patent in suit.

MR. LYMAN: Patent in suit, page 6, line 100 or thereabouts, where it says "to limit the cam actuated forward movement of the unit 234 bodily with the block 224, determinately to position the tacks beyond the inner edges of the wipers when the wipers are partially withdrawn rearwardly for the tack driving operation." As

the professor explains, all that means is that when they are in a partly withdrawn position they have not come forward and gone back, as in the early McFeely patent.

THE COURT: In the early McFeely patent there were two complete wipings and no retraction when the tacks were driven.

MR. LYMAN: No. The prior art McFeely patent, of which we saw this model here yesterday, there is a retraction each time.

THE COURT: Yes, but I mean there are just two complete wipings in the early McFeely patent, and in the McFeely patent in suit it is two complete wipings, then the half-wiping with the tackers in advance of the wiper.

MR. LYMAN: That is right.

By Mr. Lyman:

XQ477 I wish now, Professor, that you would look at the Snow patent 946,708. That, I believe you said, embodied all the elements of claim 19 of the Hoyt patent. What is the action of those members which—

THE COURT: —Will you refer to the figure?

XQ478 —Figure 3, Your Honor, I am referring to—those links at the forward end of the heel band structure. A. What was the question, please?

XQ479 What is the action of these things at the forward end of the heel band structure? A. The part 4, Your Honor, which is colored yellow, is the band, and then we come to the outer connection, which is pivoted to the member 12, which is then connected to the side rod 16, which is moved downward in this picture by the crossbar 20 and the rod 24, and in its downward motion there is the same wedge action spoken of a few minutes ago in connection with the Brock patent, which forces the pivot inward. The motion is such that the pivots cooperate with these equalizers and bars and the central pressers to permit an inward motion at the same time the pivot is forced downward, clamping the band.

XQ480 The pivot changes from the position shown in dotted lines? A. Yes, sir.

XQ481 To the position shown in full lines when the clamping pressure is applied? A. On the two sides, yes, sir.

XQ482 Do you consider those yielding or unyielding connections at the forward end of the heel band? A. Those would be unyielding connections in that they are supposed to be materials of proper strength to maintain the various lengths between pivots.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ483 What about the presence of the springs 14? A. That is merely a retractor to maintain the parts. As in most of these patents which we have looked at, there has been a spring to maintain the relation, but during this driving action that spring has no function; it is determined entirely by the lengths of the various members.

XQ484 Does the fact that these two arms are connected to that member 20, are driven by this member 20, which is, I suppose, an equalizer, affect the unyielding nature of the action? A. These are all parts which do not change in length, and my understanding of "unyielding" as used in this case means that, that is, there are parts in all of these devices which are pivoted and between which there may be relative motion of rotation or even of translation, but the lengths definitely do not change appreciably. That is, when I am saying that you can't stress a body the least bit without changing its length, but that is a mere quibble. The lengths normally do not change.

XQ485 That bar 20; you call that an equalizer bar? A. I call it an equalizer, since you seem to do that.

XQ486 The idea is that there may be more resistance temporarily on one side than the other. A. This picture, Mr. Lyman, Figure 3, shows that very thing. If you notice that configuration on the bottom, that on the right is entirely different from that on the left.

XQ487 I understand. Now with reference to these curved members 30, are they—

THE COURT: —32.

A. 30—this lead line comes in at 30.

XQ488 With reference to those members 30, the action of that wedge 35, which drives them, is again an equalizing action, isn't it? A. Yes, sir.

XQ489 Just the same as the action of the other— A. —These parts are according to the patent filled with equalizing devices.

XQ490 So that you have an unyielding pressure applied both by these arms 30 and by the forward pressure links at the end of the band? A. The wording is that these are yielding members and the walls of the curved slots engage the fixed studs 33 "and press against the shoe at the corners of the last, whereby the upper materials are pressed inwardly and securely held against springing away from the corners of the last", showing that these press inward. They are yielding and are free to move.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ491 Why are they yielding, Professor? A. On account of their length, primarily.

XQ492 What lengths? A. The lengths of those members and also—

MR. TOULMIN: He did not hear you, Mr. Lyman.

XQ493 Why are they yielding, Professor? A. Because of their lengths and because of the freedom of movement from side to side they yield to pressure greater on one side than on the other.

XQ494 You mean on account of that wedge action? A. Wedge action and slots and also on account of the length of members for the resiliency.

XQ495 Where does the patent say anything about those members having resiliency? Does the patent say anything about those members having resiliency? A. I think it does. I will see if I can find it. I may not be able to find it. (After examining patent): No. I think the quotation I gave is the best answer to that question. It is not definitely mentioned.

XQ496 In other words, you say the only description of them is that they are operated upon by this equalizer wedge? A. Yes, sir.

XQ497 And therefore they would be unyielding. A. They would be free to move.

XQ498 They would be unyielding. A. No, they would not be unyielding, because you see in the others the pressures are lengthwise. Here you have beam action and the pressure which is perpendicular, and the connection of member 30 to the chain is so long that we have a springing action there. That is a yielding member and also a springy member, a resilient member.

XQ499 You are reading something into it. Those are rigid members. A. No, they are not rigid for transverse motion, and I have not said so.

XQ500 Your explanation then is that you assume that those members 30 are built of some material so that they will yield. That is your whole answer. A. In the drawing as laid out in this patent, Figure 3, they definitely are yielding members.

XQ501 This patent, professor, which you have cited as the best answer to claim 19 of the Hoyt patent, this Snow patent which you rely upon as the closest anticipation, was not cited by your counsel in their bill of particulars against this claim at all. A. That is right.

XQ502 Will you please refer to the Pym patent?

THE COURT: Suppose we recess at this point.

Thereupon a short recess was taken, after which

resumed the witness stand and testified further, as follows:

MR. LYMAN: I am now, Your Honor, still talking about the Hoyt patent.

THE COURT: Yes.

MR. LYMAN: And I have asked the witness to direct his attention to the Pym patent, which he said was the principal reference against claim 21 of Hoyt and which he said embodied all the elements of claim 21 of the patent.

By Mr. Lyman:

XQ503 Claim 21 of the Hoyt patent, Professor, refers to "means for supporting the heel band" indicated at 140 in Figure 2 of the patent, "devices comprising arms loosely mounted on the supporting means"—those are the arms 242 which are mounted upon the back stop of the device; that is one of the supporting elements which supports the rear of the band—and "means normally operative to press said devices against the band." That latter element refers to the spring pressed plungers 242, Mr. McNulty?

MR. McNULTY: 244 on one side and 246 on the other.

MR. LYMAN: No; the spring pressed plungers I am talking about.

MR. McNULTY: 248 and 250, as shown on the drawing.

By Mr. Lyman:

XQ503 (Continued): 248 and 250; is that right? A. The reading of the elements is correct but your numbers referring to those are not correct.

XQ503 Let us correct them then. The loosely mounted arms are these arms 240, 242. A. Mounted on the supporting means, and the supporting means is the thing to which they are mounted; therefore the supporting means is at that point and not at 140.

XQ504 I did not indicate 140 as the supporting means. A. I beg your pardon. I think the record will show you mentioned 140. I followed the record carefully.

XQ505 Pardon me, Professor. All I wanted to designate by 140 was the band itself. The means which are normally operative to press these arms against the band

are these spring pressed plungers 248 and 250. A. That is correct.

XQ506 And they operate all the time to press these arms inwardly against the band? A. According to the claim and specification, yes, sir.

XQ507 So as to provide a yielding cushion whenever the shoe is forced in there against the heel band. A. Well, it is to force—the words of the claim are to force the—Well, I will read it—"means normally operative to press said devices against the band." These are the loosely mounted arms against the band; so they press these loosely mounted members against the band.

XQ508 And the result is that you have a springy cushion when the heel is jammed into the band. A. Not because they are forced toward the band but because they are there.

XQ509 They are pressing against it. A. That is, those springs or that action which you speak of, not because they press toward the band but in this particular thing they press toward the shoe, in Figure 2 of the Hoyt patent 1,508,394.

XQ510 That is what you mean by the expression "normally operative"; that is, they are there doing their work all the time? A. No, against the band. Anything which presses those devices, those handles against the band would meet this claim, in my mind—this element of the claim.

XQ511 I am speaking particularly of the word "normally". That means they are there all the time. A. All the time, yes.

XQ512 I wish you would refer to the Pym patent, 1,368,968, and I think the figures to which you particularly directed attention were Figures 9 and 10. A. That is correct. It should be 11. I am referring to Figure 11 because those are the adjacent ones to the band. Figures 9 and 11.

XQ513 Am I right in my understanding of this Pym device, Professor, in what I now say? There are arms 79 which are pivoted on a supporting member 81. A. Yes, sir.

XQ514 And they are free to swing, opening the arms, like these loosely mounted arms 240 and 242, of the Hoyt patent? A. That is right, sir.

XQ515 Mounted in those arms are these plunger elements which we see more in detail in Figure 10. A. No, Figure 11.

XQ516 First, Figure 10.

Testimony of Arthur M. Greene, Jr. (Resumed).

THE COURT: One-half is 11 and the other half is 10. A. The Figure 10, Your Honor, refers to the end members which are shown out at the extreme end of the arms. The part to which I am referring is the member which is shown in Figure 11.

XQ517 I will come to Figure 11 in a moment, Professor, but these swinging arms do carry these spring pressed plungers such as is shown in Figure 10, three on each side, toward the front end of the band? A. That is right, toward the front end.

XQ518 And at the rear end of the band there is a construction such as shown in Figure 11, in which we have a spring which surrounds a screw which enters the band itself and which tends to hold that band back against the arms 79 at the rear. A. Normally that spring holds the band against the arm, which is mounted freely on the support 81.

XQ519 These arms 79, except when the operating bars 101 force them forward, swing open like my arms now (demonstrating) under the influence of those springs 100; is that right? A. That is correct.

XQ520 So that the normal position of those arms when the clamping pressure has not been applied is open? A. Yes, sir.

XQ521 And with them, as they open, they carry the band. A. That is right.

XQ522 The band is extended wide open. A. That is right.

XQ523 In the normal position. And when the clamping operation takes place these arms are forced in and they carry with them the band which they enclose. A. That is correct, sir.

XQ524 And in that case, instead of having swinging arms they are pivoted on the support so that they move freely and pressure members abut up against them to keep them at all times pressed inwardly. We have in the Pym device pressure members which are inactive until the—which are carried by the arms themselves and they are inactive except as the arms close. A. No, the springs are always active and normally hold the band against this movable arm 79. They are never inactive. Those are always active springs.

XQ525 You are talking about the springs on Figure 11? A. Figure 11, yes, sir.

XQ526 And what those do is to take hold of the band at the rear and hold it back bodily against the support. A. They hold it against these loosely mounted arms.

Testimony of Arthur M. Greene, Jr. (Resumed).

XQ527 Hold it back, yes. All right. You said at one time in your direct-examination that the Model A machine was like, in function and performance, the machine shown in the early McFeely patent, that is, the prior art patent to McFeely, Number 1,129,881. You did say that, didn't you? A. In using your interpretation of the action and the claim.

XQ528 In making that statement you were merely saying that the machine shown in the McFeely patent in suit is like, in function and performance, the old McFeely patent. A. As far as claims 6, 85, 23, 91 and 42 are concerned, as you have interpreted them.

XQ529 You were not attempting to draw any distinction between the Model A machine and the McFeely patent in suit. That is the point I have in mind. A. My understanding is that the Model A is the McFeely patent in suit. That is my understanding.

XQ530 Yes. I simply wanted to make that clear. It was not clear to me, and I did not know whether it was to Your Honor, what the witness meant when he made that statement. You spoke about a certain jam nut on the Model A machine, and I don't know what your point was about that, Professor. I believe you made some point about it. I wish you would state it. A. The point about it, Mr. Lyman, is that the means for manual adjustment, which is the arm which limits the amount of motion of the hold-down, was moved far back and for some reason, maybe that it would not be adjustable by any of us—I don't know—but there was a jam nut placed in front of that so we could not vary the hold-down adjusting nut for adjusting the amount of motion of the initial position. Why it was done I don't know, but it seemed rather strange that a machine which should have an adjustment on it which is mentioned in claim 42, should have had an operative adjustment in the presence of the court to make it operative, you must apply a wrench to take that nut off.

XQ531 That would not be very hard for you to do. A. No it would not. Why it was done I have no idea.

XQ532 Would you impute any sinister motive to that? A. It seemed strange. I don't know why it was done.

XQ533 You may take it off. We have no objection. A. While I was there I asked if it could be adjusted, the amount of hold-down.

THE COURT: It is out of this case, isn't it?

MR. LYMAN: Not the matter of the adjustment of the hold-down.

THE COURT: As far as it affects the upwiping?

MR. LYMAN: I did not know what the professor said, what his point was about this jam nut.

THE COURT: While we are on the subject—or are you coming to it—there was a suggestion of course that the early McFeely patent anticipated this Hoyt patent too.

MR. LYMAN: Yes. I was going to deal with that with our own witness, Your Honor, to shorten it.

THE COURT: The only reason is Mr. Kath, and I think Professor Greene, the other day suggested that.

MR. LYMAN: They did; at least, Professor Greene did, and I had that in mnd, but I thought I would not take too much time in cross-examination.

THE COURT: All right.

MR. LYMAN: However, I will be very glad to do that. I was intending to take that up through Mr. McNulty in answer to that position, but I will be very glad to get the Professor's views again on that. The McFeely patent in suit, Your Honor—he said the McFeely patent in suit anticipated the Hoyt.

THE COURT: If he said the one in suit, that is all right. I understand it

By Mr. Lyman:

XQ534 It was the one in suit you suggested. A. I suggested that you might include the early one too; but the one in suit is the one I particularly referred to.

THE COURT: All right.

MR. LYMAN: That has all been discussed. I think we have the position of both parties on that. That is all.

REDIRECT-EXAMINATION

By Mr. Toulmin:

RDQ1 Will Your Honor indulge me by turning to those charts S, T and A-1? Dr. Greene, will you refer to the Defendant's Exhibits S, T and A-1, which were the subject of some cross-examination, and tell me, if the operating member 188 of the patent in suit is correctly so termed, whether or not those charts in your hand are correct or incorrect so far as that operating rod questioned by the other side is concerned? A. They undoubtedly are correct in all three of these exhibits, S, T and A-1.

RDQ2 And again assuming that the plaintiff's interpretation that the operating member is the equalizer 188, what have you to say as to the patents represented

by the exhibits S, T and A-1 being anticipation of the claims to which you applied them? A. As far as the clamping means is concerned, and with the unyielding member, they are perfect anticipations.

RDQ3 What claim are you referring to now? A. And I have also testified that the Snow patent 946,708 is a complete anticipation of all of that claim 19 of the Hoyt patent.

RDQ4 With reference to claim 42 of the McFeely patent in suit and the prior art as to that patent, upon which you were cross-examined, will you call the court's attention to the particular prior art patent or patents which you rely upon as to claim 42 so that I can ask you a question? A. The best reference to claim 42 is the early McFeely patent 1,129,881. The Pym patent 1,138,968 is the second one. For particular features of this claim we have referred also to the Cavanagh patent 1,130,142, the Merrick patent 1,245,117, and the Plant patent, 958,280.

RDQ5 Now, Dr. Greene, there was some question whether one of those references, or several of them, had all of the elements of claim 42 and, as I recall it, there was a statement that one or more of those patents did not have all of the elements of claim 42. Will you explain that clearly, so we will have no misunderstanding? A. If the court please, the question which was asked me in my cross-examination was, was there any patent which contains all the elements of the patent in suit to McFeely, and I answered "No" correctly, because the element varying the hold-down is not in the McFeely nor Pym. It is a common feature, as indicated by the Plant patent and the Merrick patent, but it is not in these other two patents.

RDQ6 And you are referring to the last element? A. And therefore I had to answer it in that way.

RDQ7 And you are referring now to the last element of claim 42? A. The last element, which refers to the element varying the amount of motion of the hold-down.

RDQ8 Which is defined in the claim as "manually adjustable means for determinately varying the amount of vertical movement of the hold-down"? A. That is correct.

MR. TOULMIN: We rely upon the doctrine established by the Court of Appeals in the Edwards case, that you don't have to find all the elements of a claim in the construction of the prior art.

Testimony of Arthur M. Greene, Jr. (Resumed).

By Mr. Toulmin:

RDQ9 With reference to the bed laster patents which have been mentioned here, both those operated by cams and those fully operable by hand, would you say as an engineer, if you were designing the McFeely patent in suit or the Hoyt patent in suit, that you would ignore those patents as to any teachings in them of value or of construction in making the design? A. No, I would not ignore any of the things.

RDQ10 Tell the court your reason for making that statement. A. Your Honor, my idea of automatic action is action which takes place of itself after a particular setting, and in the prior art to which we have referred in this trial there have been certain adjustments for the amount of motion of band or wiper, and in designing a machine of any kind I would endeavor to find out what had been done before and appropriate that, if I could, which means that if it were protected by a patent I would have to get something which would not meet the claim; but I would be very foolish to forget anything which had gone before the time of my design. And if I couldn't design something to overcome a patent claim I would have to go to the owner of the patent and secure a license if I wished to use his device. But, in any investigation, a scientist, an engineer, is exceedingly foolish if he does not search the literature to find out the conditions of his problem as determined by previous investigators and then carry on his work from that point.

RDQ11 Now, Dr. Greene, as I understand your testimony both on direct and cross-examination, with reference to the first McFeely patent you stated that there was a means, an automatic means to predeterminately adjust the position of the wipers; is that correct? A. That is correct, yes, sir.

RDQ12 Dr. Greene, speaking as an engineer, will you say it was within the range of an engineer to substitute for the automatic adjusting means of wipers of the first McFeely patent a hand or manual adjusting means for adjusting the position predeterminately of the wipers, as in the second McFeely patent?

MR. LYMAN: That is a question that is obviously inadmissible, Your Honor. That sort of question is for the court and for the court only.

MR. TOULMIN: Not at all. The court is basing his decision—

THE COURT: —I think the objection is well taken. You may proffer it.

MR. TOULMIN: No, Your Honor, I won't do that.

THE COURT: All right.

MR. TOULMIN: I think the point is clear in Your Honor's mind so you can decide it.

By Mr. Toulmin:

RDQ13 Now, Dr. Greene, let me go to one more question. As I understand it, in the first McFeely patent you have an automatic predeterminately adjusting means for the wipers, and in the second McFeely patent you have a manual means for adjusting the position of the wipers. Are those facts correct as to those two patents? A. I should say in each of them there was a manual adjustment of the position of the wipers through the strong spring in the early McFeely and through the independent bar 244 and nut 298, as well as the ratchet wheel 270.

RDQ14 Will you point out that on the first McFeely patent to which you refer? You need not get the large chart—just on the patent. A. In the early McFeely patent the co-operation between the strong spring (indicating to the court)—

MR. LYMAN: —Could I see what you are looking at? A. Yes. Figure 13. The cooperation between the strong spring, which I believe is numbered 88, its base, the bar 283 with its inclined edge, the cam slot 284 and 842 and the pin 840, together with the hand wheel—No, not the hand wheel—together with the sliding end bar on the side, which has a similar cam slot and pin, the manual adjustment of this combination is the pressure plug which acts on the heavy spring 88. Then I also said that the placing of the last with its upper within the machine, because of the hanging members which come out from the tackers and produce some of this pressure movement, that position of the last itself is also a manual method of adjustment. That was my position on my various examination.

RDQ15 All right, Dr. Greene. Now one more question and I think we will be done, Your Honor; I think it is helpful to clear up these points. With reference to the question of the heel band, upon which you were examined this morning, I wish you would refer to the Brock patent 1,188,616, and the exhibit M-1. Will you tell me, with special respect to Figure 9, which illustrates the heel band itself, whether you find any difference between the construction of that heel band and the heel band of the plaintiff in this case in the McFeely patent? I

call your attention to the slots 84 and the back slot and other features. A. In the patent in suit we have a heel band which is carried by a back support which is adjustable through the member 92, 94, just as in Figure 10 we have an adjustment for the rear end of the band, a chain. In Figure 9 we see the groove into which the hook at the bight of the band rests. Then we have in this Figure 4 of the patent in suit a spring connection on the side before we get to the end supports, just as in this patent 1,188,616 we have the tangential pressure—not the tangential pressure but the radial pressure from the band 88. We then come to the end of the figure and we note in Figure 9 the grooves which are arranged to take the hook shown in Figure 10 to permit of motion which might occur between the chain and the band as it changes its radius of curvature. The patent specification of 1,188,616, distinctly calls for a resilient band made of some substance which would yield and cause the band to conform to the shape of the last. Now, if we go to Figure 4 we again see the end supports, which take the place of the hooks at the end of these Figures 9 and 10.

RDQ16 Do you find, Doctor, in this Brock patent 1,188,616 the feature inquired about, of having a sliding support for the outer ends of the heel bands? A. We do.

MR. TOULMIN: That is all.

RECROSS-EXAMINATION

By Mr. Lyman:

RXQ1 Doctor, here is a model of the tacker-wiper construction of the early McFeely patent which was introduced in evidence yesterday and explained by a witness in your absence (referring to Exhibit No. 35). Here is a model of the Model D machine. Let us see you, please, perform the manual adjustment of the wiper position to make it conform with the contour of a shoe, which is contained in this mechanism Exhibit 8-B.

THE COURT: You want him with this exhibit of the early McFeely patent (Exhibit 35) to perform the manual adjustment on here that he can on there (indicating Exhibit 8-B).

MR. LYMAN: That is it.

MR. TOULMIN: I want to call the witness' attention to the fact that he did not hear yesterday that the witness identifying this Exhibit 35 of the plaintiff said

Testimony of Arthur M. Greene, Jr. (Resumed).

the light springs in the exhibit were not the true springs to be used.

A. May I call attention of the court, before attempting to adjust this, that this is not the McFeely patent. This is Model D, which is quite different from the McFeely patent. I could explain how I would adjust it from the drawing of the patent but I would rather not—I couldn't because it has not all the elements.

By Mr. Lyman:

RXQ2 All right. Do it then from the McFeely patent (placing drawing before court and witness). Going to the McFeely patent, how would you perform that preliminary adjustment of the wipers to the contour of the shoe which these claims call for?

MR. TOULMIN: Do you mean the McFeely patent in suit?

RXQ3 The McFeely patent in suit, claims 6 and 85.

A. Your Honor, I would determine first of all the position to which I wished the jack to go, so I would adjust the support of the heel band, bringing it either forward or backward. I would then determine the amount of tacking space which I would like beyond the edge of the wiper, and I would do that by positioning—and also from the edge of the shoe—I would do that by positioning this arm which is secured to the frame, but not rigid so that I would limit the amount of motion of the tacker. Now, as I call the attention of the court, the relative motion between tacker and wiper is fixed by the length of this slot and the position of that member. I would then go over here and again determine the position at which I wished my tacks driven and so would adjust this piece (indicating), which has nothing to do with the driving mechanism. It is only the determining method, just the same as this member (indicating); it has nothing to do with the driving. Then I would go down here and turn the handle to 70, which would move this end tacker and wiper inward, and, as I called attention of the court, these two member are so placed that the tackers are always beyond the wiper, and as they close in there is relative turning between these two members. Having done that, I would then go through the operation which Mr. McFeely has indicated in his patent specification. But that is the preliminary adjustment.

MR. LYMAN: In other words, if Your Honor please, the preliminary adjustment that the patent contem-

plates is this movement of this ratchet which swings in the wipers to the contour of the shoe it is desired to operate upon. Then the machine is operated.

THE COURT: Then it is set.

By Mr. Lyman:

RXQ4 I ask you, Professor, now to take this model Plaintiff's Exhibit 35 of the early McFeely patent and preliminarily adjust the position of those wipers to the contour of a shoe, manually do it. A. In this—

RXQ5 —Do it, please, and then explain how you are doing it afterwards. A. I am not familiar with the machine so I may make slips. I could do it from the drawing, Your Honor.

THE COURT: I suggest that in view of the fact the Professor was not here yesterday he be given some description of how it works.

MR. LYMAN: He has examined it.

A. I think I know how it works. I would also in this determine the position of the hold-back relative to the position of the machine, the jack.

RXQ6 Please confine yourself to how you are going to preliminarily adjust the position of the wipers in this machine.

MR. TOULMIN: Let him answer.

A. Your Honor, you can't do that without that, I am saying, and I think I should be allowed to explain it.

THE COURT: Go ahead.

A. Your Honor, as I told the court in my explanation, that the position of these dependent members from the tackers—

RDQ7 —Feelers. A. These feelers, if you call them so, 122, come against the jack—not the jack but the last, and consequently the position in which you put this last determines the final position of the tackers and wipers because of that operation.

THE COURT: That conforms to your testimony about the automatic operation in this earlier patent in your cross-examination this morning. You say your testimony here as to this machine conforms to—

MR. LYMAN: —Copeland, you mean?

THE COURT: Yes.

MR. LYMAN: Copeland manually can be operated and carries it as far as he wants to. Here the machine carries it until that stop stops it.

THE COURT: The testimony here conforms to the testimony this morning about the Copeland patent.

MR. LYMAN: Yes.

Testimony of Arthur M. Greene, Jr. (Resumed).

A. Then we would adjust, according to the teachings of McFeely, the tightness of this spring which acts on the flanged edge and determines the relative amount of motion of the wiper and the tacker, and as a result also determines the amount of motion of the tacker. Then with the last in position, in properly selected position and the nuts at this point and this point and this point (indicating) tightened to the degree at which I would like to have the machine operate, I would start operation and it would operate as required by the co-action of these various parts.

By Mr. Lyman:

RXQ8 Professor, if you screwed these down, these plungers down to the utmost degree, compressed that spring to rigidity, would it move your wipers? A. I think it might, yes, sir.

RXQ9 At the start? A. No, not at the start.

RXQ11 We are talking about a preliminary adjustment of wipers. A. For the final condition.

RXQ12 For the final condition. A. This is the preliminary condition of the wipers.

MR. TOULMIN: Witness points to nuts.

A. The motion of fixing the wipers is a preliminary adjustment.

RXQ13 Would that movement, pressing these plungers down to the limit, move these wipers originally? A. No, no.

RXQ14 You suggest that a preliminary adjustment is possible of this machine because you can put different sizes of shoes in there? A. Yes, I do.

RXQ15 You think that is an adjustment? A. Yes, I do; yes, indeed.

RXQ16 And you think because you can put different sizes of shoes in there you have gotten an adjustment of the machine. A. That is the purpose of this patent, to care for such changes in sizes of shoes.

RXQ17 And that, too, the wiper will never hit the shoe until the power stroke comes. A. That is correct.

RXQ18 Is there a hint in the old McFeely patent about any of these theories you are suggesting as to preliminary adjustment of the wipers? A. Yes.

RXQ19 One hint? A. Yes.

RXQ20 Where do you find it? A. I will be very glad to give it to you.

RXQ21 One hint about any preliminary adjustment—that is what I am speaking of—prior to the power stroke,

any adjustment of the position of the wipers preliminary to the power stroke in the apparatus shown in that patent. A. The complete quotation would start from page 6, line 117. If you wish all of this placed in the record I can read it.

RXQ22 Yes, I guess you had better read it. Anything that shows a preliminary adjustment of the wipers I certainly want to know about. A. We have read this, Your Honor.

THE COURT: The question is now—it is concrete and it is suggesting one definite point. The suggestion of the question is, is there any suggestion of preliminary adjustment in the original McFeely patent?

MR. LYMAN: That is right, Your Honor, of the wipers.

A. Your Honor, my point is, my position is this—

By Mr. Lyman:

RXQ23 —That question could be answered "Yes" or "No".

THE COURT: Yes. Then you can explain.

A. I would answer it yes, and my explanation is this, that on tightening these devices you make a preliminary adjustment of the system, including the wipers, and make the wipers— And, by the way, the tightening of the spring and the placing in of the shoe preliminarily sets this machine so that it wipes just as you want it. It is done preliminary to the working of the machine. If you mean that there is moving of the wiper before the machine moves, there is none. If premilinary adjustment means so that the wipers actually move, there is none in this patent.

THE COURT: And that is a fair comparison now with the McFeely patent in suit?

A. Yes, sir. And in my mind the preliminary adjustment of the wipers means the wiper mechanism. Of course, if it does not, you can go to so many in the prior art where the actual shape of the wiper is changed either by moving the end bodily or by screwing a little piece in, or by taking, for instance, the Pym patent. If preliminary adjustment means that you move it before the wiper is moved by power, this of course does not have it but Pym has it beautifully. So does Eaton, which is a very early patent. If preliminary means that, that preliminary is not here, but there is a preliminary adjustment to operate the wipers as they should be operated, and that adjustment is the tightening of the screws and

Testimony of Arthur M. Greene, Jr. (Resumed).

the use of the last with its shoe. That is the position I took in my direct and cross-examination.

MR. LYMAN: No further questions.

MR. TOULMIN: May I call Your Honor's attention, for the sake of accuracy, that in claim 6 there is no mention of preliminary. It says "determinately."

THE COURT: Predeterminately.

MR. TOULMIN: It does not use the word "predeterminately." I suppose it means the same thing.

THE COURT: Yes.

MR. TOULMIN: And will you mark on the first McFeely patent—before I close my case—one sentence while we are on the subject?

THE COURT: Yes.

MR. TOULMIN: That is 1,129,881.

THE COURT: Page 5.

MR. TOULMIN: Yes, page 5, and mark lines 20 to 24. The purpose of that is it mentions the predetermined adjustment.

MR. LYMAN: Predetermined adjustment of what?

MR. TOULMIN: You can read it.

THE COURT: Give me the place again.

MR. TOULMIN: Page 5, lines 20 to 24. We will cover that in our argument.

Now, if the court pleases, defendant rests.

At this point a recess was taken until 2:00 o'clock in the afternoon of the same day, Wednesday, January 24, 1939.

AFTERNOON SESSION,

WEDNESDAY, JANUARY 24, 1939.

Court met pursuant to recess, counsel being present on behalf of both parties.

MR. LYMAN: If Your Honor please, there has been testimony about that adjustable stop, and it may or may not be necessary for Your Honor to ultimately resolve it. It will be a question of argument. But it concerns claim 42 only and I think we want to put on Mr. Condon, who is present, and also Mr. Ryan on that point.

Thereupon,

George V. Condon,

called as a witness on behalf of plaintiff, in rebuttal, having been first duly sworn, testified as follows:

Examined by Mr. Lyman:

Q1 What is your name? A. George V. Condon.

Q2 Where do you live? A. Roslindale, Massachusetts.

Q3 You are employed by the United Shoe Machinery Corporation? A. Yes, sir.

Q4 And have been for a long time? A. It is twenty and a half years now, this last period.

Q5 And you are in the service department; that is, you go around on the road to iron troubles out in connection with lasting machines? A. Throughout the country.

Q6 You went to the factory of the Williams Manufacturing Company with Mr. Ryan in December, 1936, didn't you? A. I did.

Q7 Now I am going to just ask you what your recollection is as to the presence on that machine when you saw it of this adjustable abutment behind the hold-down operating lever.

MR. TOULMIN: I object, Your Honor. That is proper prima facie testimony. They had one witness on it. If they wanted to call the gentleman they should have called him and given us an opportunity to rebut what he said. They now come in on this rebuttal testimony and our fact witnesses are gone. We have no way of rebutting this proposition.

THE COURT: I have a distinct recollection of the strap. This concerns the so-called strap attached by Mr. Bender.

MR. TOULMIN: That is right.

THE COURT: He may proceed You may have an exception.

Q8 What is your recollection as to whether that adjustable stop was there or not, Mr. Condon, when you saw the machine with Mr. Ryan. A. I firmly believe it was.

CROSS-EXAMINATION

By Mr. Toulmin:

XQ1 Did you make any record, sketch, drawing or anything to show what the construction was at the time you inspected the machine? A. I made no records of anything.

Thereupon Mr. Condon retired from the witness stand and

Thomas J. Ryan,

recalled as a witness on behalf of plaintiff, in rebuttal, having been heretofore duly sworn, resumed the stand and testified further as follows:

By Mr. Lyman:

Q98 Mr. Ryan, you have heard the testimony of various witnesses about the matter of the adjustable stop on the defendant's machine when you saw it at Portsmouth. I am simply going to ask you whether, in view of that testimony, you have anything to say that will change your original testimony. A. No.

Q99 Your original testimony is correct? A. It is correct.

Q100 One other question, namely, what was it? A. There was an adjustable abutment on the machine for the hold-down.

Q101 One other point. Some reference has been made to features that are present on the Model D machine which is shown in that Jorgensen patent. Were there models previous to the Model D of this heel seat laster which did not contain those features—Model B? A. A Model B machine, yes, sir.

Q102 Did the Model B laster have the Hoyt improvement, so-called? A. It did.

Q103 In the Model B did the machine tack through the wipers or was it like the Model A? A. The Model B was like the Model A in that respect.

Q104 Was that machine sold to a large extent? A. Yes, some three hundred and sixty-four put in use in this country by the United Corporation.

MR. LYMAN: That is all.

MR. TOULMIN: No cross.

Thereupon Mr. Ryan retired from the stand and

Peter C. McNulty,

recalled as a witness on behalf of plaintiff, in rebuttal, having been heretofore duly sworn, testified further, as follows:

By Mr. Lyman:

Q80 You have listened to the testimony of Professor Greene in this case. A. I have.

Q81 Is there or is there not in the defendant's machine an arrangement in which the tacking units cooperate with the wiper plates?

MR. TOULMIN: We object, Your Honor. They went all over that extensively with this witness in their prima facie case.

THE COURT: There is some question here as to the relativity of the motion and the cooperation.

MR. LYMAN: I just asked that plain question. It may have been asked before but I want to make sure this witness's position is on the record.

THE COURT: He may answer.

A. There is cooperation between the tacking and wiping units in defendant's machine.

By Mr. Lyman:

Q82 With reference to claim 85 Professor Greene called attention to one phrase of the claim which he thought was not readable upon the defendant's machine, namely, the expression "additional power means for subsequently operating the wipers". Is it your opinion that there is such additional power means for operating the wipers in the defendant's machine?

MR. TOULMIN: We object. That is a matter of opinion for the court, I think.

THE COURT: Yes. I think that yesterday I asked the question of you that in that preliminary adjustment by hand—I think that that is the first part of claim 85 of this—in the combination of means described plus the additional power means, and I think it was your suggestion that what was intended was that after the preliminary adjustment, when the power stroke threw the cam again on that, that was the additional power means.

MR. LYMAN: Yes, sir.

THE COURT: Of course, as I say, it is a question of interpretation. I think for the purpose it is understood, and the objection may be well taken.

By Mr. Lyman:

Q83 May I then just ask this question of the witness: Is there any substantial difference in regard to that matter as between the machine shown in the McFeely patent itself and the defendant's machine? A. There is not only no substantial difference but the parts which in Exhibit 16 of the McFeely patent, enlargement of Sheet 3, the parts which are colored violet and perform the initial adjustment later move with the power operated parts on the power stroke of the machine.

THE COURT: That is just a question of interpretation.

MR. LYMAN: Only one thing I will point out—that in that argument the Professor made with reference to the defendant's machine it would also apply to the very patent itself.

THE COURT: I understood Professor Greene's theory was there was just one power stroke, just one power stroke and no additional power means in there.

MR. LYMAN: He had some theory about how, when you undertook to move a certain rack or segment there which did the manual adjusting of the rest of the apparatus, it took part in that adjustment simply because it stood still. That was the theory that he announced.

THE COURT: Yes. What he meant, the substance of his testimony so far as 85 is concerned, was that there was no additional power means.

MR. LYMAN: That is what he said.

By Mr. Lyman:

Q84 Now briefly, Mr. McNulty, with reference to this Copeland patent of the prior art, Number 244,714. You have examined that patent and studied it, haven't you? A. Yes, sir.

Q85 You have studied, as a matter of fact, all the prior art references which have been put in evidence and cited by the defendant, have you? A. Yes, I have.

Q86 This Copeland reference was so fully gone into this morning, Your Honor, that I don't believe it is necessary to go further by way of explaining. I will ask you simply whether in that Copeland patent there is described in the patent or is any means for effecting a preliminary adjustment of the wipers to the contour of the shoe and subsequent means for operating the wipers for their effective stroke. A. No, there is not, and the parts of the specification, page 2, lines 100 to 109, that were read this morning, simply means, Your Honor, that if you are lasting the toe end of the shoe, as shown in the drawings, when you move forward to cause the swinging closing movement of the wipers, the opposite end upon which the heel wipers are located are by that act retracted from their former position, open, and then if you turn that portion around for the heel operation next then the wipers are open ready for their action on the shoe.

Q87 Does that Copeland patent show a structure that is practical or operative? A. To me it is not a practical structure for the reasons that were explained this morning—for the reasons that were gone into extensively this morning.

Q88 Turning now to the prior art McFeely patent Number 1,129,881, please state whether you find in that patent any manually operable means determinately to adjust the positions of the wiper plates to initially position the wiper plates to act on the marginal portions at the end of a shoe upper? A. No, sir, I do not. There is no initial adjustment on the shoe whatsoever.

Q89 Please state whether you find, in that prior art patent to McFeely 1,129,881 any means for effecting a preliminary adjustment of the wipers to the contour of the shoe. A. No, sir, there is none.

Q90 Please refer to this same McFeely patent, the prior art patent to McFeely, 1,129,881, as regards its bearing upon the slideable heel band adjustment claims with which we are dealing in this case, claims 23 and 91. I believe the Professor has already said that the heel band, if used in that machine, will simply come out and fall loose when the shoe is removed; is that correct? A. That is my understanding of the way it acts, and I think that is what he intended by what he said. There are not any grooves in the heel band. The parts I think the professor referred to in Figure 8 as being able to see the grooves are merely cords 50 looked at from a side view.

Q91 Is there then in that patent any such element as this element of claim 23 which I read, "means to support the lower edges of said clamping member at opposite sides"—that is the heel band—and "manually operable means to move said adjusting member to slide the U-shaped clamping member relatively to said pressure members"? A. No, sir, there is not. There is no sliding movement there. Your Honor has seen the actual sliding movement of the bands of the plaintiff and the defendant, where there is an actual sliding movement between the support at the front end of the band. There is no such action as that in the early McFeely patent.

Q92 So it is obvious, Your Honor, that there isn't the action called for by claim 91 either. I think it is hardly necessary to ask the witness—perhaps I had better, for the record. In the language of claim 91 do you find in this early McFeely patent 1,129,881 "supporting means relatively to which the opposite side portions of the band are permitted to slide lengthwise of the shoe?" A. No, sir. I do not.

Q93 Turn, please, to those patents which show heel band supports—show heel bands supported by chains, those Brock patents and the Cavanagh patent, the Brock

patents being 601,935, 1,002,818 and 1,188,616, and the Cavanagh 1,130,142. In that kind of a construction do you find the subject-matter of claims 23 or 91, or either of them? A. No, sir. There is no sliding movement between the presser members at the outer end of the band and the band, or between any supporting members at the outer end of the band and the band. Your Honor will notice in all of these patents that the parts at the chain end are attached to a pivoted lever, and on the outer ends of the pivoted member there is a spring member. If movement occurs of the chain ends which would advance it forwardly, the spring under tension would cause the pivoting of the member to which the chain end is attached and there would be simply a swinging motion of the chain end, and the band with it. There is no such sliding motion between the presser members and the supports as the plaintiff and the defendant have here in the exhibits in this lawsuit. The parts may have, as I think the Doctor said, some mathematical adjustment due to radii of different circles, but it is a minute thing and not a practical sliding motion like the freeing of the heel band of the plaintiff and defendant in this lawsuit.

Of course, you called my attention to Cavanagh and I did not say anything about the fact that I agree with the Doctor that the Cavanagh Figure 4 and Figure 3—that is patent 1,130,142—shows that the band is actually riveted to the depending part from the presser member marked 52. There is no number of the part that extends down from it and contacts the band, but it is riveted. I have actually riveted a part together and watched it act, and I could see no difference whether it was riveted or unriveted.

MR. TOULMIN. I object to an ex parte test which gives us no opportunity to—

THE COURT: —The motion will be granted.

Q94 Look at 601,935 and see whether that describes the chain as fastened or not, please. That is the Brock patent 601,935. A. The chain is shown fastened to the front end of a pivot member D.

Q95 Described as such, too, isn't it, on page 2, line 82? A. Yes, sir.

Q96 In the prior art McFeely patent 1,129,881, will you describe what the motion of the hold-down is from the beginning, just the motion of the hold-down? A. The patent in its operation describes, after having gone through the operations shown by the drawings on Sheet 3, which is no part of this controversy, relating to the

bringing of the upper into position and tacking it, that the shoe is then swung into positon, after which the heel band is closed, the first wiping operation takes place, then the hold-down raises to position for the second wiping operation.

Q97 And stays up there until the cycle of operation is completed? A. Until the cycle of operation is completed.

Q98 Contrast that with the motion of the hold-down in the McFeely patent in suit. A. In the McFeely patent in suit the hold-down is first pushed down from an elevated position to a position below the wiper and then after wiping, after the first wiping operation takes place, the hold-down is raised between the two wiping operations and then the second wiping operation takes place, and the half-wiping operation takes place with the hold-down in that position.

Q99 In the defendant's machine does the hold-down start in the upper position and then descend and then rise again, as in the McFeely patent in suit? A. Yes, sir, it does.

MR. LYMAN: Coming now to the matter of the Hoyt patent and the prior art set up against it we, being true to colors, Your Honor, have got another colored drawing. This which I offer to present to Your Honor is the same drawing which was identified by Dr. Greene this morning and which is in evidence as Plaintiff's Exhibit 36, as representing the defendant's heel band mechanism, colored by Mr. McNulty. I would like to offer it in evidence.

The drawing so offered in evidence is made part of this record as **Plaintiff's Exhibit No. 37.**

By Mr. Lyman:

Q100 I would like to have Mr. McNulty compare the two things, the drawing of Hoyt and this drawing showing the defendant's mechanism (placing drawings before the court and witness). A. In Plaintiff's Exhibit 37 I have applied a brown color — As Plaintiff's Exhibit 37 is an enlargement of another exhibit which I don't know the number of, and the enlargement was given a number, 36, and taking that drawing I have applied to what the Doctor described as the rack portion a brown color, which receives its power from the cam and transmits the power through the spring, which I also colored brown; to the bolt having a headed member on it and nuts at the rear

end I applied a light red color and marked the head end of it "Operating Member" and from that member on each side are forwardly extending spaced rack bars, each rack bar being connected through arms to a presser member at the forward end of the heel band. I have applied to the spaced rack bar and to the arms up to the presser member a yellow color, and on the presser member itself I have applied an orange color and have put the legend "Connection between operating member and presser members to the arms," and put the lead-line to the two presser members and put the word "Heel Band" on, and you will see in the center a member which has been colored dark red, which has a yoke at its forward ends and a back stop at the center that I am pointing to. This member is adjustable with the sepia colored portions which go out to the right-hand side, and I put a lead-line and "Manual Adjustment for the Heel Band". Then I applied a pink color to the part of the arms mounted upon this adjustable supporting back stop member and also applied a pink color to the set screws that are in the arms, about which there has been so much testimony. And pivoted at the forward end of the arms are a pair of plates, to which I put the legend "Spring Pressed Plates on Loosely Mounted Arms". Behind these arms and a dark red yoke are cylinders, to which I have applied a gold color to the end, at the back end, and the member extending out to the front end that contacts the arms. This mechanism is the mechanism that was verbally described on my direct-examination and represents what we have found in defendant's machine in court, except in my application of colors in Plaintiff's Exhibit 20 I broke one of the red arms back and showed the spring inside and, as I understand the testimony here, the machine in the hall has no spring in it; it has a plug instead of springs.

Q101 But it did have the springs originally. A. That has been the testimony.

Q102 You have indicated your colors in the same way as the colors are indicated for similar parts in Exhibit 20, have you? A. I have; and I put the same legend to the same parts that appeared on Exhibit 20.

MR. LYMAN: I don't think anything more, Your Honor, than a comparison of those two drawings is necessary to show that one is a Chinese copy of the other, even down to the detail of those little set screws, which Hoyt did not show but which the plaintiff has been using for years in its commercial machine.

By Mr. Lyman:

Q103 Compare now, please, the construction which is common to the Hoyt patent and to the defendant's machine, as shown on these exhibits, Plaintiff's Exhibit 36 and 37, with the two prior art patents that are cited by the defendant as the principal references against those claims, first, the Snow patent 946,708. I think that was the one that the Professor said embodied the subject-matter of claim 19, although it was not pleaded by defendant against claim 19 of Hoyt. A. In claim 19 of Hoyt the last element calls for "separate yielding means operating on each side of the band adjacent to the bight of the band to press such portions of the band against the shoe". The Doctor referred to the pair of arms 3 in Figure 3 of the Snow patent as the yieldable members. To me these are not yieldable members; they are rigid members.

Q104 Is there any description in the patent indicating that they are yieldable connections, yieldable members? A. No, sir.

MR. LYMAN: I don't think that that was cited against claim 21, Your Honor. I don't think that is relied upon in claim 21 by the Doctor. It hasn't the loosely mounted arms and means normally operative to depress them,—that combination of 21. It is not alleged to have by the Professor.

By Mr. Lyman:

Q105 Will you turn then to the Pym patent 1,368,968, which was cited by the defendant's expert witness, Professor Greene, as showing the subject-matter of the claim 21 of Hoyt. Will you compare that Pym structure that is shown in Figures 9, 10 and 11 with the Hoyt structure as shown in the Hoyt patent and as embodied in the defendant's machine, with reference to the terms of the elements called for by claim 21? A. If Your Honor will look at Figure 9 first, you will see a pair of arms 79 which are pivoted and which are secured to the forward ends of the heel band as shown in Figure 10, where the little screw 96 is shown connecting them to the heel band. Those arms are actuated to close the heel band when the bars 101 push forwardly, and as the bars are retracted the springs 100 will open the arms. Then in Figure 11 is shown a screw similar to 96, and it is marked 97, except that there is a resilient connection there instead of a rigid connection, so that the band would be pulled backward against the mem-

bers 82. To me that is an entirely different organization than the pink arms of the two exhibits on the easels, one being Exhibit 20 and the other one Exhibit 37, for in the Hoyt patent in suit and in the defendant's structure, when pressure is brought rearwardly into the heel band the arms are permitted to press yieldingly against the band and here we have a structure in which the member 82 is a rigid member behind the band; and if you look at the plan view, Figure 9, you will see how 82 is sort of a semi-circular figure extending around the band and body. The two structures will not operate the same way, and you will not get the same result.

Q106 I think I will ask you also to compare the form of heel band mechanism shown in the McFeely patent in suit with that shown in the Hoyt patent, because I think there has been an argument made or a position stated to the effect that the claims in suit of Hoyt, numbers 19 and 21, do not differentiate from the McFeely patent. I shall point out, Your Honor, that the Hoyt patent purports to be an improvement on the McFeely patent; in this respect it refers to the McFeely patent. Will you need another drawing to illustrate that? A. No, sir, I don't think so. His Honor has a copy of the patent.

THE COURT: Does Sheet 4 give you a correct—

A. —That is right; Sheet 4 is the one you would look at. Your Honor, in Sheet 4 of this patent you will find that the spring member 100 is interposed between the bell crank arms 138 and the orange presser member in Exhibit 17, which is now on the easel, so that you have a yielding connection at the forward end of the heel band, whereas in the Exhibit 20 of the Hoyt patent you have no such spring connection at the part where you see the big 208 character. That is a rigid connection at that point. So that this McFeely patent in suit does not have the unyielding connection at the forward end of the heel band.

In connection with the claim 21, in which the elements call for devices comprising arms loosely mounted on the supporting means, if you look in another figure of the patent—I think it is on Sheet 5—you will see in Figure 6 a number 68.

THE COURT: Yes.

A. That is a spring member, that is rigidly attached to the member 64, and has arms extending outwardly in each direction. So that there are no loosely mounted arms mounted on the support as called for by that claim.

Testimony of Peter C. McNulty (Rebuttal).

Q107. You have finished with that explanation? A. Yes.

MR. LYMAN: Your Honor asked this morning if we were going to cross-examine the Professor with regard to the relationship between these Hoyt claims and the earlier prior art McFeely patent, and I understood the Professor to say he would reply upon that, so we did not go through that and I won't with this witness. I think that is all we have to ask of this witness.

Thereupon Mr. McNulty retired from the witness stand.

"This was all the evidence offered at the trial of the within cause by both parties."

MOTION

(Filed May 19, 1939.)

Now comes the defendant and moves this Court for leave to introduce in evidence a certified copy of the file wrapper of the first McFeely Patent No. 1,129,881.

This motion is made pursuant to Equity Rules Nos. 43(a), 44(a) and 52(b).

MEMORANDUM

The plaintiff at the trial took the surprising position that the first McFeely patent did not represent a successful and commercially operable structure and that the second McFeely patent was the first successful and commercially operable heel seat lasting machine.

The whole case of the plaintiff is founded upon the fact that the differences between the two patents which it claims exist in "details" (Plaintiff's brief, p. 49.), are the vital differences, it says, between success and failure; and that the first McFeely patent was never used to make shoes and was not a commercially operable machine, while the second McFeely patent in suit

was the first successful, commercially operable heel seat lasting machine.

The defendant has now secured a certified copy of the first McFeely patent and deposited it in this Court as a part of its brief in this case. This file wrapper of the first McFeely patent shows that the statements and testimony at the trial and the statements in the brief of plaintiff were untrue because the first McFeely patent was a commercially operable, successful heel seat lasting machine that was put into commercial production and was claimed to be by this plaintiff, its counsel, McFeely and his corroborating witness Russell, such a machine.

For instance, this file wrapper of the first McFeely patent shows the following:

> "* * * that from the said layout drawing detail drawings were made and a full-sized operative machine was constructed which has been employed for lasting heel seats in the ordinary course of manufacture of many pairs of shoes"; (Oath of McFeely executed Nov. 24, 1914, first McFeely file wrapper, p. 183.)

> "That he has read the accompanying affidavit of said McFeely and believes the same to be true." (Affidavit of Arthur L. Russell corroborating the McFeely affidavit of November 24, 1914 as to successful commercial use; page 184, first McFeely file wrapper.)

> "It should be recognized at the beginning of this case that applicant is the first inventor ever to have produced a successful heel seat lasting machine and," etc. United Shoe attorney in file wrapper of first McFeely, p. 141, in 1913.)

> "This application is therefore entitled to such liberal treatment from the Patent Office Examiner as it may be expected that the patent will receive, under these circumstances, from the courts because of its fundamental position in the heel seat lasting art. An absolutely pioneer invention is defined by those claims which recite an assembling and heel seat lasting machine because no one in the art has ever disclosed an organized machine for this work." (P. 141, first McFeely file wrapper.)

"There appears to be no dispute about the novelty of the combinations recited in these claims and if the utility of the combination were challenged, applicant would bring forward conclusive evidence of the greatly improved results obtained by tensioning the upper forwardly and lasting the heel seat while the tension is maintained as herein described." (P. 143, first McFeely file wrapper.)

"Neither that inventor nor any one else during more than a quarter of a century had the constructive genius to see that such forward pulling and holding mechanism and heel seat lasting mechanism as applicant has combined could be correlated in an organized machine and made to produce important results in shoemaking." (P. 144, first McFeely file wrapper.)

"As applicant is advised, the combination of lasting means and a back stop with adjusting and indicating means as required has not before been shown in the lasting machine art." (United Shoe attorney in file wrapper of first McFeely, p. 124.)

"In Fig. 18 the back stop shown as formed on a rack bar adjustable by a shaft 690 having a handle at the side of the machine with a pawl in it to engage a locking ratchet 691 having marked on it graduations indicating the proper adjustment for different sizes. The ratchet can be adjusted to position the graduations for different groups of sizes such as men's, women's or children's sizes." (Lines 79-88, p. 4 of first McFeely patent.).

"Applicant takes the position that this combination is a new and patentable invention involving a material advance in the shoe making art and affording practical results of very substantial value and therefore, in the absence of other references, he must request the allowance of the claims above mentioned." (United Shoe attorney in file wrapper of first McFeely, p. 114.)

This Court can take judicial notice of this file wrapper and its contents and the estoppel contained therein against this plaintiff taking the position is has taken relative to the first McFeely patent and the second Mc-

Feely patent in this litigation on the subject of commercial success. But it is deemed desirable that this file wrapper be made an exhibit in this cause. This motion is for this purpose.

It should be admitted under the following statutes and authorities:

Rule 44 (a) of the Rules of Civil Procedure reads in part:

> "An official record or an entry therein, when admissible for any purpose, may be evidenced by an official publication thereof or by a copy attested by the officer having the legal custody of the record, or by his deputy, and accompanied with a certificate that such officer has the custody."

The Act of June 19, 1934, 28 U. S. C. A. 661, reads in part:

> "(a) Copies of any books, records, papers, or other documents in any of the executive departments, or of any corporation all of the stock of which is beneficially owned by the United States, either directly or indirectly, shall be admitted in evidence equally with the originals thereof, when duly authenticated under the seal of such department or corporation, respectively.
>
> "(c) The seal of any such executive department or corporation shall be judicially noticed."

The Act of June 20, 1936, 28 U. S. C. A., 695, reads as follows, in part:

> "In any court of the United States and in any court established by Act of Congress, any writing or record, whether in the form of an entry in a book or otherwise, made as a memorandum or record of any act, transaction, occurrence, or event, shall be admissible as evidence of said act, transaction, occurrence, or event, if it shall appear that it was made in the regular course of any business, and that it was the regular course of such business to make such memorandum or record at the time of such act, transaction, occurrence, or event or within a reasonable time thereafter."

We therefore request the Court to reopen the case for the sole purpose of introducing this file wrapper of the first McFeely patent as Defendant's Exhibit No. H-2.

Motion.

This Court has power to reopen this case pursuant to Equity Rules Nos. 43 (a), 44 (a), and 52 (b).

Dolle, O'Donnell & Cash,
Toulmin & Toulmin,
Solicitors for Defendant.

Copy of within motion left at office of Bennet R. Knight this 19th day of May, 1939.

James B. O'Donnell,
Attorney for Defendant.

AFFIDAVIT OF ARTHUR L. RUSSELL.

(Filed June 22, 1939.)

Arthur L. Russell, having been duly sworn, deposes and says as follows:

My name is Arthur L. Russell; I am 68 years of age and reside at Boston, Massachusetts. I was formerly an attorney in the Patent Department of the United Shoe Machinery Corporation and am now employed in the Research Department of that corporation.

I am the attorney who prosecuted the application for McFeely patent No. 1,129,881 and who made an affidavit under date of November 24, 1914 which was filed in connection with said application.

In the affidavit of the inventor, McFeely, also dated November 24, 1914 and filed in connection with said application, to which reference is made in my said affidavit, McFeely said, among other things:

> "that from the said layout drawing detail drawings were made and a full-sized operative machine was constructed which has been employed for lasting heel seats in the ordinary course of manufacture of many pairs of shoes."

Such a machine was constructed and I saw it in operation at the factory of the Victor Shoe Company at Salem, Massachusetts.

This machine was sent by the United Shoe Machinery Corporation to the Victor Shoe Company for test in the actual lasting of heel seats under commercial conditions. While there it was operated by employees of the United Shoe Machinery Corporation on work belonging to the Victor Company and shoes lasted on it were sold by the Victor Company as part of their commercial product, the arrangement between the Victor Company and the United Shoe Machinery Corporation being that no charge should be made to the Victor Company for the work done on this machine and that any shoes spoiled in the operation of the machine should be paid for by the United Shoe Machinery Corporation.

The machine was, as stated in the arguments made in the filewrapper, "a pioneer invention", in that it was the first machine for automatic heel seat lasting, and many shoes were successfully lasted upon it, of certain particular sizes. But the machine proved incapable of operating satisfactorily upon a range of sizes large enough to adapt it for commercial operation in the ordinary shoe factory; and after it had been tested for a period it was returned to the United Shoe Machinery Corporation and dismantled and no other similar machine was ever built. The first automatic heel seat lasters manufactured commercially by the United Shoe Machinery Corporation were machines of the construction shown in the McFeely patent No. 1,558,737, in suit in this case.

Arthur L. Russell.

(Duly verified)

ORDER ON DEFENDANT'S MOTION TO REOPEN
(Filed July 21, 1939).

This cause having come on to be heard on June 26, 1939 on defendant's motion to reopen the case for the purpose of introducing in evidence a certified copy of the file wrapper of the McFeely patent No. 1,129,881 and also an affidavit of Arthur L. Russell, dated June 19, 1939, filed by plaintiff herein, the parties having submitted briefs on this motion and the matter having been considered by the Court, defendant's motion is hereby denied, to all of which defendant excepts.

John H. Druffel
United States District Judge

July ....., 1939.

Approved as to form:
Fish, Richardson & Neave,
Of Counsel for Plaintiff.

Toulmin & Toulmin,
Of Counsel for Defendant.

FINDINGS OF FACT, CONCLUSIONS OF LAW AND OPINION
(Filed July 21, 1939).

The Court makes the following findings of fact and conclusions of law.

FINDINGS OF FACT

1. This is a patent infringement suit brought by United Shoe Machinery Corporation, a New Jersey corporation, against The Williams Manufacturing Company, an Ohio corporation, on McFeely patent No. 1,558,737 and on Hoyt patent No. 1,508,394. The claims in suit are claims 6 and 85, 23 and 91, and 42 of the

McFeely patent and claims 19 and 21 of the Hoyt patent. Plaintiff is the owner of the patents in suit and has been the owner thereof at all times since said patents respectively were issued.

2. The charge of infringement is based on defendant's use of four "Calzera" automatic heel seat lasting machines purchased by defendant from Moenus Maschinenfabrik A/G, Frankfort A/M, Germany, three in 1933 and one in 1934, which machines have been used continuously by defendant since said dates.

3. The McFeely patent in suit discloses a power-operated heel seat laster which automatically performs, in a fraction of a second, the operation of heel seat lasting. Heel seat lasting involves conforming the upper materials to the contour of the heel end of the last, wiping the marginal portions or "lasting allowance" of the upper materials, around the heel end of the last, inwardly over an insole on the last, and fastening it to the insole in lasted position.

4. The McFeely patent in suit discloses, and the claims in suit are directed specifically to, certain features of construction which render the machine capable of operation on a wide range of sizes and shapes of shoes.

5. The tacker-wiper claims, Nos. 6 and 85, are specifically directed to tacking units which cooperate with the wiper plates in the performance of the heel seat lasting operation, the tackers moving with the wiper plates, both in preliminary manual adjustment of these parts to accommodate shoes of different sizes and in the subsequent power operation of the machine.

6. The sliding heel band adjustment claims, Nos. 23 and 91, are specifically directed to mechanism in which the heel band is adjustable lengthwise of the last, to accommodate shoes of different sizes, and in such adjustment the heel band slides relative to its side supporting members and to its pressure members.

7. Claim 42 is directed to a machine having the general characteristics and sequence of hold-down movements of that shown and described in the patent, one element of which machine is manually adjustable means for determinately varying the amount of vertical movement of the hold-down.

8. The machine shown in the McFeely patent in suit is the first automatic heel seat laster which ever went into commercial use. Prior to the advent of this machine, heel seat lasting had been done principally on so-called "hand method" or "bed" machines which involved re-

peated manipulations of levers, foot treadles and various other appliances by the operator, and was a time-consuming and laborious operation, with non-uniform results.

9. Machines of precisely the form shown in the McFeely patent in suit were manufactured by the plaintiff, under the designation "Model A", for a period of years. Subsequently, similar machines, differing from that shown in the McFeely patent in that the heel band pressure mechanism was made in accordance with the Hoyt patent in suit, were manufactured by the plaintiff under the designation "Model B". These models were superseded by the plaintiff's "Model D" and "Model E" automatic heel seat lasters, which models, like the "Model B" machine, employed the Hoyt improvement in heel band pressure mechanism, and which differ otherwise from the precise showing of the McFeely patent in that in these models the tacks are driven through holes in the wipers instead of at a predetermined distance beyond the edge of the wipers. These differences do not affect the principle or mode of operation of the machine as regards the subject matter of the McFeely claims in suit and all of said models have embodied the features of construction to which said claims are directed.

10. The features of construction covered by the McFeely claims in suit are of large practical importance.

11. Defendant's machines are substantially similar to the machines shown in the McFeely patent in suit, modified by the use of the heel band pressure mechanism of the Hoyt patent in suit, and similar to the plaintiff's "Model D" and "Model E" in that in them the tacks are driven through holes in the wipers instead of at a predetermined distance beyond the edge of the wipers.

12. In defendant's machines the tacker-wiper combination is differently mounted and operates in a slightly different manner than that taught by the McFeely patent, but said machines employ substantially the same means shown in the McFeely patent and covered by McFeely claims 6 and 85.

13. The heel band adjustment in defendant's machines is substantially identical with that shown in the McFeely patent in suit and embodies the subject matter described in the sliding heel band adjustment claims of the McFeely patent, claims 23 and 91.

14. Modifications said to have been made in these machines in 1936 by the removal of certain wing screws

and clips do not affect the operation of the machine nor avoid infringement of said claims 23 and 91.

15. Defendant asserts that the use of said wing screws and clips in its operations is unnecessary and that it does not intend to restore the same, and the Court so finds.

16. Defendant's machine produced in court had a stop for determining the amount of vertical movement of the hold-down. This stop can be adjusted by loosening a screw which attaches the stop to the frame and putting in or removing a shim, and by this manipulation the vertical movement of the hold-down may be determinately varied. Originally, defendant's machine had a form of adjustable stop similar to that shown at "X" on the photograph of the Moenus automatic heel seat laster, Plaintiff's Exhibit 10. Whichever of these forms is used, the machine has manually adjustable means for determinately varying the amount of vertical movement of the hold-down.

17. Defendant was notified by plaintiff on or about January 28, 1936, of its alleged infringement of the patents in suit by its use of said machines, and continued thereafter to use said machines.

18. Defendant's machines infringe all of the claims in suit of the McFeely patent in suit, Nos. 6 and 85, 23 and 91 and 42.

19. The Hoyt patent in suit No. 1,508,394 describes a form of "fastening inserting machine" embodying certain features which the patent says may be usefully employed in other types of machines.

20. One of the features of construction disclosed in said Hoyt patent relates to heel band pressure mechanism in which there are unyielding connections to the pressure members which force the open ends of the band against the shoe and separate yielding means operating on each side of the band adjacent to the bight of the band to press such portions of the band against the shoe, said latter means comprising arms loosely mounted on the supporting means for the band and means normally operative to press said arms against the band. Claims 19 and 21 of the Hoyt patent are directed to this arrangement.

21. The arrangement of heel band pressure mechanism disclosed in said Hoyt patent and covered by said claims is of practical importance and has been used in all of plaintiff's commercial automatic heel seat lasters since the "Model A".

22. The heel band pressure mechanism of defendant's machine, as it existed up to and at the time this suit was brought, was identical with that shown in the Hoyt patent and described by said claims 19 and 21.

23. The so-called "set screws" or adjusting screws which are present in the arms mounted adjacent the bight of the heel band, both in the defendant's machines and in the plaintiff's "Model D" and "Model E" machines, do not interfere with the function of these arms in swinging about their pivot or in applying pressure to the corners of the band during the operation of the machine, but only regulate the extent of this swinging movement.

24. Defendant's machines infringe said claims 19 and 21 of said Hoyt patent.

25. The features of construction defined in the tacker-wiper claims of the McFeely patent in suit, Nos. 6 and 85, were new and useful.

26. The features of construction defined in the sliding heel band adjustment claims of the McFeely patent in suit, Nos. 23 and 91, were new and useful.

27. The features of construction defined in claim 42 of the McFeely patent in suit were new and useful.

28. The features of construction of the heel band pressure mechanism defined in claims 19 and 21 of the Hoyt patent in suit were new and useful.

29. The earlier McFeely patent No. 1,129,881 discloses a machine in which, during the power stroke, after certain "feelers" or stops on the tackers contact the shoe or the heel band, the wiper plates are withdrawn during the rest of the power stroke of the machine. This patent discloses no means for adjusting the position of the wipers or tackers preliminary to the power stroke, nor any lengthwise adjustment of the heel band in which the band slides relative to its supports and pressure members, nor any adjustment for varying the amount of vertical movement of the hold-down. This patent does not disclose the sequence of operations of the McFeely patent in suit, as defined in claim 42 in suit, nor does it disclose the inventions covered by any of the McFeely claims in suit or the inventions covered by the Hoyt claims in suit.

30. The Pym patent No. 1,368,968 discloses no tackers. The machine of this patent was neither designed nor intended to perform a complete heel seat lasting operation. Pym provided no lengthwise adjustment for his heel band, and no such sliding adjustment as is called for by claims 23 and 91 of the McFeely patent in

suit. The Pym patent does not disclose the sequence of operations called for by claim 42 of the McFeely patent in suit, nor any means for adjusting the amount of vertical movement of the hold-down. Pym does not disclose the heel band pressure mechanism described in the Hoyt patent in suit and called for by claims 19 and 21 thereof in suit.

31. The McFeely patent in suit, No. 1,558,737, does not disclose the heel band pressure mechanism described in the Hoyt patent in suit and called for by claims 19 and 21 thereof in suit.

32. The earlier McFeely patent No. 1,129,881 and the Pym patent No. 1,368,968 do not disclose, either separately or in combination, the subject matter of the claims in suit of the McFeely patent No. 1,558,737 in suit or of the Hoyt patent in suit No. 1,508,394.

33. The prior patents cited by defendant against claims 23 and 91 of the McFeely patent in suit, such as the Brock patents Nos. 601,935, 1,002,818, and 1,188,616; Cavanagh No. 1,130,142, and others, taken singly or in combination, fail to disclose the sliding adjustment of the heel band disclosed in the McFeely patent in suit and claimed in claims 23 and 91 thereof.

34 Defendant offered in evidence many other prior art patents in addition to those specifically mentioned above. These patents, either alone or in combination, fail to disclose the inventions described in the McFeely and Hoyt patents in suit and called for by the claims in suit.

35. The inventions shown in the McFeely and Hoyt patents in suit and described in the claims in suit were new and useful and involved invention over the prior art.

CONCLUSIONS OF LAW

1. The McFeely patent in suit, No. 1,558,737, is valid as to the claims in suit, Nos. 6 and 85, 23 and 91, and 42.

2. The Hoyt patent in suit, No. 1,508,394, is valid as to claims 19 and 21 in suit.

3. Defendant has infringed said claims 6, 85, 23, 91 and 42 of the McFeely patent in suit by the use of its Moenus automatic heel seat lasting machines.

4. Defendant has infringed said claims 19 and 21 of the Hoyt patent in suit by the use of its Moenus automatic heel seat lasting machines.

5. Plaintiff is entitled to an injunction against further infringement of said claims, to an accounting for past infringement thereof, and to its costs.

OPINION

After careful consideration of the evidence including the prior art, and an examination of the authorities cited in behalf of plaintiff and defendant, this Court finds as a matter of fact that the heel seat laster covered by the McFeely patent in suit is the first automatic heel seat laster commercially practicable; that by reason thereof the heel seat lasting of shoes is accomplished four times as fast as by the prior hand method with a consequent reduction in cost; that the workmanship of the heel seat of a shoe lasted by the McFeely machine is far superior in that all are uniform, whereas when done by hand the workmanship varies according to the skill of the operator, which also resulted in a much larger percentage of damaged shoes than is now the case when the heel seat is lasted by the machine.

The Court also finds as a matter of fact that this machine is a commercial success as evidenced by the fact that more than twelve hundred are in use throughout the world.

The Court also finds as a matter of fact that Claims 6 and 8 of the patent in suit (tacker-wiper combination) are valid and have been infringed by defendant; that the defense of anticipation has not been sustained by defendant; that while the McFeely patent in suit No. 1,558,737, embraces many elements of the McFeely patent No. 1,129,881, the earlier McFeely patent lacked, so far as it relates to Claims 6 and 85, certain elements which prevented it from being commercially successful; that is to say, among others, it would not permit of a successful operation upon a range of shoe sizes; the operation of the tackers and wipers could not be controlled with accuracy, or in other words, adjusted as are the tackers and wipers in the machine covered by the patent in suit; and also, immediately before the tacking movement the wipers would be retracted partly to permit of the tacking and in so doing have a tendency to pull the upper from the insole, which would tend in some instances to and in many operations did make an imperfect job, if not damage the shoe. This was overcome in the machine covered by the patent in suit by the wipers moving in toward the shoe, holding the upper in place rather than pulling the upper away from the last, prior to the tacking as in the earlier McFeely patent.

The Court also finds as a matter of fact that while the tacker and wiper combination in defendant's machine is differently mounted and operates in a slightly different

manner than that taught by the McFeely patent in suit, this Court is obliged to hold that it infringes plaintiff's patent in suit because it employs substantially the same means. Gordon Form Lathe Co. v. Walcott Machine Co., 32 F. (2d) 55, 61; Reynolds Spring Co. v. L. A. Young Industries 36 F. (2d) 150, 152.

The Court also finds as a matter of fact that Claim 42, (a general claim covering the machine based on the McFeely patent in suit) is valid and infringed by the defendant. On the issue of fact as to infringement the Court holds with the plaintiff, based on the testimony of witness Ryan, who testified that the hold-down adjustment mechanism was in place on the machine when he saw it at defendant's plant. This testimony is supported by the "Moenus" catalogue, plaintiff's Exhibit No. 10, showing the member marked "X" in place. Also by the fact that although defendant's machine exhibited in court did not have the member "X" affixed to the machine, nevertheless there were threaded openings to which it had been attached. This fact together with the testimony that the clips connecting the heel band mechanism were sawed off, and the bight springs removed in an attempt to avoid infringement, tends to discredit defendant's witnesses' testimony that their machines were being operated without the hold-down adjustment.

As to Claims 23 and 91 of McFeely and Claims 19 and 21 of Hoyt, the Court finds as a matter of fact that they are valid and infringed by defendant, notwithstanding the sawing off of the clips to which the wing nuts were fastened.

On the issue of fact of the sawing of the heel band clip the Court is of the opinion and so finds that because of the standard of shoe manufactured by defendant, said heel seat lasting machine may be used without the use of said clip and that the defendant has sustained the burden of proof that they do not intend to continue using the lasting machine with the attached clips.

Specifically, as to the heel band adjustments covered by the McFeely and Hoyt patents, defendant offered evidence as to the state of the prior art, and strongly contends the McFeely patent in suit is anticipated by the earlier McFeely patented heel band mechanism. On this subject the Court finds as a matter of fact that Hoyt made a valid and new contribution to permit of the centering of the shoe in the machine, and to assure equal pressure at both sides and at the end of the heel; that as to the McFeely patent, although the McFeely patent

in suit does contain some of the elements of the earlier McFeely patent, new elements were introduced that were novel and helped make the McFeely heel seat laster in suit the commercial success that it is.

Specifically, on the question of anticipation by the earlier McFeely patent of the patent in suit, the Court in holding the same valid and infringed is obliged to follow the principle enunciated in Consolidated Window Glass Co. v. Window Glass Machine Co. et al., 261 Fed. 362, Barber v. Otis Motor Sales Co., 240 Fed. 723.

John H. Druffel
United States District Judge

July 21, 1939.

INTERLOCUTORY DECREE

(Filed July 21, 1939).

This cause having come on to be heard on the pleadings and proofs and having been argued by counsel and considered by the Court, it is hereby

ORDERED, ADJUDGED and DECREED:

1. That United States Letters Patent to McFeely No. 1,558,737 is good and valid in law as to claims 6, 23, 42, 85 and 91 thereof and that said McFeely was the original and first inventor of the improvements patented therein.

2. That United States Letters Patent No. 1,508,394 to Hoyt is good and valid in law as to claims 19 and 21 thereof and that said Hoyt was the original and first inventor of the improvements patented therein.

3. That the plaintiff, United Shoe Machinery Corporation, is the owner of the entire right, title and interest in and to said Letters Patent and each of them.

4. That the defendant, The Williams Manufacturing Company, has infringed said Letters Patent and each of them by using heel seat lasting machines embodying

the inventions described and patented by said Letters Patent and each of them and in particular by claims 6, 23, 42, 85 and 91 of said McFeely patent and by claims 19 and 21 of said Hoyt Patent.

5. That a perpetual injunction issue out of and under the seal of this Court directed to the said defendant, The Williams Manufacturing Company, its officers, agents, clerks, servants and workmen, enjoining and restraining them, and each of them, from directly or indirectly infringing said Letters Patent No. 1,558,737 and 1,508,394, or either of them, as to said claims and from contributing to or aiding and abetting the infringement thereof by others.

6. That the plaintiff recover the profits, savings and advantages which defendant has derived, received or made by reason of its said infringement of said Letters Patent and each of them, and also all damages which the plaintiff has sustained from said infringement, and that this cause be referred to a Master of this court to be appointed to take and state an account of such profits, savings and advantages and to assess such damages and to report thereon with all convenient speed; and the officers, employees and agents of said defendant are hereby directed and required to attend the aforesaid Master from time to time, as required, and to produce before him such books, papers and documents as relate to the matters at issue, and to submit to such oral examination as said Master may require.

7. That as to United States Letters Patent to Pym No. 1,368,968, which was withdrawn from suit prior to the trial, the bill of complaint be dismissed.

8. That plaintiff recover its costs.

This decree shall be suspended for a period of ten days from date and may be superseded pending an appeal to the United States Circuit Court of Appeals on the giving by defendant of a supersedeas bond in the sum of $10,000.00 with surety to be approved by this Court.

John H. Druffel
United States District Judge

Approved as to form:
Fish, Richardson & Neave,
Of Counsel for Plaintiff.

Toulmin & Toulmin,
Of Counsel for Defendant.

NOTICE OF APPEAL.

(Filed July 29, 1939).

To The Honorable District Judges of the District Court of the United States for the Southern District of Ohio, Western Division:

Notice is hereby given that the Williams Manufacturing Company, the above named defendant, hereby appeals to the United States Circuit Court of Appeals for the Sixth Circuit from the interlocutory order and decree entered herein on July 21, 1939, sustaining the bill of complaint and, among other things, awarding plaintiff an injunction and an accounting.

Bond for costs and to supersede the injunction, in the sum of Ten Thousand dollars ($10,000.00), with the Mellbank Surety Corporation, Pittsburgh, Penna., as surety, is submitted herewith.

Dated this 29th day of July, 1939.

THE WILLIAMS MANUFACTURING COMPANY,
Defendant,

By H. A. Toulmin, Jr.
Counsel for Defendant,
Mutual Home Bldg.,
Dayton, Ohio.

Toulmin & Toulmin,
H. A. Toulmin,
H. A. Toulmin, Jr.,
James B. O'Donnell,
Solicitors and Of Counsel for Defendant.

SUPERSEDEAS BOND

(Filed July 29, 1939).

Know all men by these presents: That we, The Williams Manufacturing Company, of Portsmouth, Ohio, as principal, and Mellbank Surety Corporation, a corpora-

tion of Delaware, with its principal place of business at 525 William Penn Place, Pittsburgh, Pennsylvania, as surety, are held and firmly bound unto the above named plaintiff, United Shoe Machinery Corporation, in the full and just sum of Ten Thousand Dollars ($10,000.00) to be paid to said plaintiff, its successors, assigns or legal representatives, to which payment well and truly to be made, we bind ourselves, our successors, assigns and legal representatives, jointly and severally by these presents.

Executed this 26th day of July, 1939.

The condition of this obligation is such that:

Whereas, on the 21st day of July, 1939, in the above entitled action between the above named plaintiff, United Shoe Machinery Corporation, and the above named defendant, The Williams Manufacturing Company, an interlocutory decree was rendered against the defendant by the United States District Court for the Southern District of Ohio, Western Division, holding the patents in suit valid and infringed and awarding an injunction to enjoin further infringement and the said defendant is appealing from said decree to the United States Circuit Court of Appeals for the Sixth Circuit to reverse the decree of said District Court in the aforesaid suit and is filing notice of said appeal with the Clerk of said District Court in accordance with the Federal Rules of Civil Procedure:

Now the condition of the above obligation is such that if said The Williams Manufacturing Company, the defendant, shall prosecute its said appeal to effect, and shall answer all charges, damages and costs that may be awarded against it, if it fails to make its said appeal good, then the above obligation to be void; otherwise to remain in full force and virtue.

THE WILLIAMS MANUFACTURING COMPANY,
Principal,
By A. G. Williams,
President.

Attest: F. L. Williams,
Secretary

(Seal)

MELLBANK SURETY CORPORATION,
Surety.
By W. M. Smiley,
Vice President.

(Seal)

Attest: E. B. Clarke, Secretary.

(Duly Authenticated).

ORDER EXTENDING TIME FOR FILING TRANSCRIPT IN COURT OF APPEALS.

(Filed August 7, 1939.)

It appearing upon application of defendant, that the record on appeal herein is such that it is impraetical to print the same within 40 days after the notice of appeal, it is hereby ordered that the record on appeal herein shall be filed with the Court of Appeals for the Sixth Circuit within 90 days from the date of the notice of appeal filed July 29, 1939, or on or before October 27, 1939.

Nevin, United States Judge.

Approved as to form:
Bennett R. Knight,
Counsel for Plaintiff.

Toulmin & Toulmin,
Counsel for Defendant.

ORDER ON WITHDRAWING EXHIBITS

(Filed October 4, 1939.)

Upon application of defendant and for good cause shown, it is ordered that the original papers herein as may be needed for printing the record for the United States Circuit Court of Appeals for the Sixth Circuit may be withdrawn and used by the printer for that purpose.

Nevin, United States Judge.

Approved as to form:
Bennett R. Knight,
Counsel for Plaintiff.

Toulmin & Toulmin,
Counsel for Defendant.

ORDER DIRECTING FORWARDING OF PHYSICAL EXHIBITS TO COURT OF APPEALS

(Filed October 5, 1939).

This day came the Defendant-Appellant, The Williams Manufacturing Company, by its attorneys and prayed the Court that said original and stipulated Exhibits in the within case be sent by the Clerk of this Court to the Clerk of the United States Circuit Court of Appeals for the Sixth Circuit, as part of the Record on the Appeal in this case; and Plaintiff-Appellee consented thereto;

IT IS ORDERED, that the Clerk of this Court send to the Clerk of the United States Circuit Court of Appeals at Cincinnati, Ohio, the following Exhibits, being the originals of certain Exhibits introduced in evidence in the within cause:

Plaintiff's Exhibits Nos. 3-A to 3-I inclusive; 5-A to 5-I inclusive, 6, 8-A, 8-B, 10, 10-A, 11, 13 to 22 inclusive, 24, 26, 27, 28, 33, 34, 35, 35-A, 36 and 37.

Defendant's Exhibits Nos. B, D to Z inclusive; A-1 to X-1 inclusive; A-2 to D-2 inclusive; E-2-A to E-2-E inclusive; F-2, G-2 and H-2.

It is further ordered that Plaintiff's Exhibits Nos. 4 and 7 and No. 1224 being heavy bulky pieces of machinery, Exhibits 4 and 7 being retained in the custody of the plaintiff, and Exhibit 1224 being retained in the custody of the defendant, may be sent to the Clerk of the Court of Appeals for the inspection of said Court in connection with this appeal by either parties so desiring.

Dated this ..... day of October, 1939.

Druffel,
United States District Judge.

Approved:
Fish, Richardson & Neave,
Attorneys for Plaintiff-Appelle.

Toulmin & Toulmin,
Attorneys for Defendant-Appellant.

STIPULATION AND DESIGNATION AS TO CONTENTS OF TRANSCRIPT OF RECORD ON APPEAL.

(Filed October 5, 1939.)

It is stipulated by the parties hereto that the contents of the Transcript of Record on appeal in the above-entitled cause shall consist of the items specified to be printed by the defendant-appellant in the attached Designation of Contents of Transcript of Record on Appeal and, when so printed and certified to by the Clerk of the District Court as to correctness, and filed, shall be considered as the Transcript of the Record, evidence and proceedings of this cause in full compliance with Paragraphs (a), (b) and (f) of Rule 75 of the Rules of Civil Procedure. This stipulation shall constitute no waiver of the right of either party. To apply to the Court to order changes or additions to be made in the record.

All Exhibits introduced in evidence or offered in evidence at the trial of the within cause not specified to be reproduced in the printed Transcript of Record are to be treated as physical exhibits to be sent by the Clerk of the District Court to the Clerk of the Court of Appeals for the Sixth Circuit at Cincinnati, Ohio, as such physical exhibits.

Fish, Richardson & Neave,
Attorneys for Plaintiff-Appellee.

Toulmin & Toulmin,
Attorneys for Defendant-Appellant.

DESIGNATION OF CONTENTS OF TRANSCRIPT OF RECORD ON APPEAL TO BE PRINTED BY THE DEFENDANT-APPELLANT.

(Filed October 4, 1939.)

To The Clerk of the District Court of the United States
For the Southern District of Ohio, Western Division:

Pursuant to Rule 75 (a), (b) and (f) of the Federal Rules of Civil Procedure and the attached Stipulation of the parties, please prepare a Transcript of Record for the Circuit Court of Appeals for the Sixth Circuit in the above-entitled cause and include therein the entire record and all proceedings and evidence consisting of the papers, files, orders and proceedings designated herein below as follows:

Item Number Of Designation	Description of Item
1.	Bill of Complaint.
2.	Motion of Defendant to Strike Paragraph (9) of Bill of Complaint.
3.	Order Sustaining Motion to Strike Paragraph (9) of Bill of Complaint.
4.	Amended Bill of Complaint.
5.	Motion of Defendant for Further Particulars.
6.	Decision of Judge Nevin on Motion for Further Particulars.
7.	Order Entered on Defendant's Motion for Further Particulars.
8.	Plaintiff's Statement of Particulars.
9.	Plaintiff's Statement of Dates of Invention.
10.	Defendant's Statement of Dates of Prior Uses To Be Relied Upon By Defendant.
11.	Answer and Counterclaim of Defendant.
12.	Motion of Plaintiff to Dismiss Defendant's Counterclaim.
13.	Plaintiff's Motion for Further and Better Particulars.
14.	Plaintiff's Further Bill of Particulars.
15.	Statement of Prior Art Relied Upon By Defendant.

Designation of Contents of Transcript of Record on Appeal to be Printed by the Defendant-Appellant.

Item Number of Designation	Description of Item
16.	Order Withdrawing Plaintiff's Motion to Dismiss Counterclaim of Defendant and Granting Leave to File Answer.
17.	Plaintiff's Answer to Defendant's Counterclaim.
18.	The Reporter's Transcript of the Evidence and Proceedings had at the Trial and Hearing before District Judge, John H. Druffel, January 16 to 25, 1939 inclusive, in form to be subsequently agreed upon by the parties, or in the absence of such agreement, Certified by the Clerk.
19.	The Following Notation shall appear at the end of The Reporter's Transcript as called for under Item 18 hereof: "This was all the evidence offered at the trial of the within cause by both parties".
20.	Motion of Defendant for Leave to Introduce in Evidence a Certified Copy of the File Wrapper of the First McFeely Patent No. 1,129,881.
21.	Affidavit of Arthur L. Russell, filed by the Plaintiff, June 22, 1939, in connection with Plaintiff's Memorandum in Opposition to Defendant's Motion to Reopen.
22.	Order on Defendant's Motion to Reopen.
23.	Findings of Fact, Conclusions of Law and Opinion entered July 21, 1939.
24.	Interlocutory Decree Entered July 21, 1939.
25.	Notice of Appeal filed by Defendant.
26.	Supersedeas and Appeal Bond in amount of $10,000.00 filed by Defendant.
27.	Order Extending Time For Filing Transcript of Record in Court of Appeals.

Designation of Contents of Transcript of Record on Appeal to be Printed by the Defendant-Appellant.

Item Number of Designation	Description of Item
28.	Order Permitting Withdrawal of Papers and Exhibits to be Printed.
29.	Order re sending up Physical Exhibits.
30.	This Stipulation and Designation of Contents of Transcript of Record on Appeal.
31.	Stipulation re Certification of Record by Clerk of District Court.
32.	Certificate of Clerk of District Court.

EXHIBITS

The Transcript of Record shall include also the following Exhibits:

PLAINTIFF'S EXHIBITS

Number of Exhibit	Description of Exhibit
1.	Printed Copy of McFeely Patent No. 1,558,737, dated October 27, 1925.
2.	Printed Copy of Hoyt Patent No. 1,508,394, dated September 16, 1924.
9.	Letter dated December 17, 1935 to Albeko Shoe Machinery Corporation.
10.	(Pages marked a, b, c, d and e only) Catalogue of Moenus Maschinenfabrik A.-G., Frankfort on Main.
12a to 12m inclusive.	Correspondence and cablegram between Moenus Maschinenfabrik A.-G., Albeko Shoe Machinery Corporation and United Shoe Machinery Corporation.
23-A	Photograph showing Plan View of Plaintiff's Exhibit 8-B.
23-B	Photograph showing Top View of Plaintiff's Exhibit 8-B with Plates Removed.
23-C	Photograph showing Bottom View of Heel Band Portion of Plaintiff's Exhibit 8-A.

Designation of Contents of Transcript of Record on Appeal to be Printed by the Defendant-Appellant.

Number of Exhibit	Description of Exhibit
23-D	Photograph showing Plan View of Plaintiff's Exhibit 8-A.
23-E	Photograph showing Front View of Plaintiff's Exhibit 8-A.
23-F	Photograph showing Bottom Plan View of Plaintiff's Exhibit 8-B.
23-G	Photograph showing Plan View of Plaintiff's Exhibit 8-B.
25-A	Photograph showing Complete View of Left-Hand Side of Defendant's Machine.
25-B	Photograph showing Complete Front View of Defendant's Machine.
25-C	Photograph showing Complete View of Right-Hand Side of Defendant's Machine.
25-D	Photograph showing Close-Up View of Part of Right-Hand Side of Defendant's Machine.
25-E	Photograph showing Close-Up Front View of Defendant's Machine.
25-F	Photograph showing Front View Looking Into Tacker-Wiper Mechanism of Defendant's Machine.
25-G	Photograph showing Bottom View of Tacker-Wiper Unit of Defendant's Machine.
25-H	Photograph showing Bottom View of Tacker-Wiper Unit, with Right-Hand Plate Removed, of Defendant's Machine.
25-I	Photograph showing Top View of Part of Tacker-Wiper Unit of Defendant's Machine.
25-J	Photograph showing Close-Up View, Tacker-Wiper Removed, of Defendant's Machine.
25-K	Photograph showing Heel Band Mechanism of Defendant's Machine Looking Up From Bottom.
25-L	Photograph showing Heel Band Mechanism of Defendant's Machine

Designation of Contents of Transcript of Record on Appeal to be Printed by the Defendant-Appellant.

Number of Exhibit	Description of Exhibit
	From Bottom With Machine Actuated.
25-M	Photograph showing Heel Band Mechanism of Defendant's Machine with Band in Place.
25-N	Photograph showing Heel Band Mechanism of Defendant's Machine with Band Closed.
25-O	Photograph showing Heel Band Mechanism of Defendant's Machine, Bottom View Band Up-Side-Down.
25-P	Photograph showing Heel Band Mechanism of Defendant's Machine, from above, Parts Separated.
25-Q	Photograph showing Top View of Heel Band of Defendant's Machine.
25-R	Photograph showing Rear View of Heel Band of Defendant's Machine.
25-S	Photograph showing Right-Hand Side of Heel Band of Defendant's Machine.
25-T	Photograph showing Left-Hand Side of Heel Band of Defendant's Machine.
25-U	Photograph showing View of Actuating Parts, Set Screws, Supporting Slide, Back-Stop, Pressure Plates, etc. of Defendant's Machine.
25-V	Photograph showing Right-Hand Side Rack Device, Plug and Nut, etc. of Defendant's Machine.
29.	Sheet of Photographs of Defendant's Machine entitled "General View of Machine".
30.	Sheet of Photographs of Defendant's Machine entitled "Wiper-Tacker Mechanism".
31.	Sheet of Photographs of Defendant's Machine entitled "Heel Band Adjusting Mechanism".
32.	Sheet of Photographs of Defendant's Machine entitled "Heel Band Pressure Mechanism".

Designation of Contents of Transcript of Record on Appeal to be Printed by the Defendant-Appellant.

DEFENDANT'S EXHIBITS

Number of Exhibit	Description of Exhibit
A.	Jorgensen Patent No. 1,852,015.
C.	Printed Copies of Prior Art Patents as follows:

Name	Number	Date
Copeland et al	No. 244,714	July 19, 1881
Lombard	No. 524,445	August 14, 1894
Eaton	No. 596,323	December 28, 1897
Brock	No. 601,935	April 5, 1898
Snow	No. 701,412	June 3, 1902
Snow	No. 946,708	January 18, 1910
Plant	No. 958,280	May 17, 1910
Brock	No. 1,002,818	September 12, 1911
Keys	No. 1,023,854	April 23, 1912
MacLeod	No. 1,030,519	June 25, 1912
Bayard	No. 1,068,843	July 29, 1913
McFeely	No. 1,129,881	March 2, 1915
Cavanagh	No. 1,130,142	March 2, 1915
Stiggins	No. 1,132,630	March 25, 1915
Brothers	No. 1,135,945	April 13, 1915
McFeely	No. 1,135,958	April 13, 1915
Brock	No. 1,188,616	June 27, 1916
Merrick	No. 1,245,117	October 30, 1917
Pym	No. 1,368,968	February 15, 1921
McFeely	No. 1,558,737	October 27, 1935.

(NOTE:
The McFeely Patent No. 1,558,737, mentioned above as being part of Defendant's Exhibit "C", being the same as Plaintiff's Exhibit No. 1, is not to be reproduced here, the Transcript of Record to contain the name, number and date of this Patent No. 1,558,737, with the notation that it is the same as Plaintiff's Exhibit No. 1 and is, therefore, not duplicated.)

Number of Exhibit	Description of Exhibit
Y-1-A	Letter dated January 18, 1937 from the Williams Manufacturing Company by F. L. Williams to Toulmin & Toulmin.
Y-1-B	Copy of letter dated January 21, 1937 from Toulmin & Toulmin to H. F. Lyman.

Designation of Contents of Transcript of Record on Appeal to be Printed by the Defendant-Appellant.

Z-1 Letter dated February 9, 1938 from The Williams Manufacturing Company by B. T. Gialdim to Toulmin & Toulmin.

All of the above called for papers, documents and exhibits are to be delivered to the printer for the purpose of printing and reproducing same.

Fish, Richardson & Neave,
Attorneys for Plaintiff-Appellee.

Toulmin & Toulmin,
Attorneys for Defendant-Appellant.

CERTIFICATE AS TO CORRECTNESS OF PRINTED RECORD ON APPEAL

TO THE CLERK OF THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF OHIO, WESTERN DIVISION:

I, Rowan A. Greer, hereby stipulate and certify that I am Associate Counsel for the firm of Toulmin and Toulmin, attorneys of record for the defendant in the above action, and that the printed record on appeal, comprising two volumes is a full, true and correct copy of all orders, records and proceedings in said case, as the same appears on file in the office of the Clerk of the District Court, and as called for in the designation as to the contents of the Transcript of the Record on Appeal.

Rowan A. Greer.

CERTIFICATE OF CLERK

United States District Court, Southern District of Ohio,
Western Division.

United Shoe Machinery Corporation,
Plaintiff,

In Equity. No. 1016 vs.

The Williams Manufacturing Company,
Defendant.

I, Harry F. Rabe, Clerk of the District Court of the United States for the District and Division aforesaid, do hereby certify that the foregoing pages numbered from 1 to 498 inclusive, constituting Volume I, and pages 1 to 509 of Volume II, being the printed Exhibits, contain a true and correct copy of the record and proceedings indicated in the praecipe found on page 492 herein, as the same appear of record and on file in the office of the Clerk of said Court, in the above-entitled cause.

In witness whereof, I have hereunto subscribed my name and affixed the seal of said Court, at the City of Cincinnati, Ohio, the ..... day of ....., 19.....

.....
(Seal) Clerk.

.....
Deputy.

PROCEEDINGS IN THE
UNITED STATES CIRCUIT COURT OF APPEALS
FOR THE SIXTH CIRCUIT

CAUSE ARGUED AND SUBMITTED

(February 13, 1941—Before: Simons, Hamilton and Martin, JJ.)

This cause is argued by Harry A. Toulmin, Jr. for Appellant and by H. F. Lyman for Appellee and is submitted to the court.

DECREE

(Entered June 25, 1941)

Appeal from the District Court of the United States for the Southern District of Ohio.

This cause came on to be heard on the transcript of the record from the District Court of the United States for the Southern District of Ohio, and was argued by counsel.

On Consideration Whereof, It is now here ordered, adjudged and decreed by this Court that the decree of the said District Court in this cause be and the same is hereby amended in accordance with the opinion of this court and as so amended is affirmed.

OPINION

(Filed June 27, 1941)

Before: SIMONS, HAMILTON and MARTIN, Circuit Judges.

SIMONS, Circuit Judge. Certain of the claims of two patents in the shoe-making art were held below to be valid and infringed by a number of machines purchased abroad by the appellant and used by it in the United States. The appellant assails the decree in respect both to its adjudication of validity and infringement.

The patents in suit are McFeely, No. 1,558,737, for a lasting machine, granted October 27, 1925, and Hoyt, No. 1,508,394, for a fastening inserting machine, granted September 16, 1924. Both inventions concern themselves with improvements in machines for lasting heel seats of shoes of various shapes and sizes. Of the two the McFeely combination is the more comprehensive, clearly the more important in the development of the art, and its adjudication more vital to the determination of the controversy, since Hoyt is concerned with a relatively minor improvement in machines of the type embodied in the McFeely invention.

In the McFeely machine, as it is described in the specification and the evidence, and as demonstrated, the shoe upper, with its lining and counter assembled on a last, is placed on a pivoted jack with the bottom uppermost. An insole has been tacked to the last and the upstanding edges of the upper at the toe and shank of the shoe have already been flattened down and attached to the insole. The heel seat lasting, which is to be done on the machine, involves conforming the upper materials snugly to the contour of the heel end of the last by an operation called "wiping," which consists of flattening the marginal portions of the upper, counter and lining down on the insole and then fastening them in lasted position. To accomplish this the jack is swung toward the machine into a "heel band" and under what is known as a "hold-down," which is a vertical movable member that governs the vertical position of the shoe in the machine. The machine is placed in motion by tripping

a treadle, and power operations take place in following sequence. The jack is pulled farther into the machine to seat the shoe snugly against the heel band, the shoe bottom is pressed against the hold-down so that the last and shoe are forced downwardly to place the insole below the plane of elements called "wipers." The wipers are then automatically advanced to close over the bottom of the last to break down the upstanding edges of the upper, counter and lining over the insole surface. The wipers are then retracted and the first wipe is complete. The jack and last are then pulled back tighter into the heel band and forced upward more firmly against the hold-down to position the shoe with the surface of its insole substantially in the plane of the wipers. These are now caused to again advance and close for a second wipe which is called "ironing." Retraction of the wipers again follows, and upon their final advance they confine the lasting allowance against the insole while tacks are automatically driven through the materials to hold them in place on the insole. The heel band then opens, the jack is lowered, the wipers and tackers are withdrawn and the jack swings out of the machine so that the operator may remove the shoe and present another assembly for lasting.

While these operations require extended description the entire sequence is completed in the fraction of a second and too swiftly for the eye to follow. It is said that the heel seat lasting operation is a delicate and important one, and that there must be an accurate fit so that the heel of the shoe may subsequently be applied without any looseness in the upper material. It is to attain this objective that there must be the first wiping operation with the wipers somewhat above the plane of the insole and the second wiping or ironing operation in substantially the same plane.

It is contended by the appellant that essentially all of the elements of the McFeely patent are old, that they are combined and function in manner taught by the prior art, and that what the inventor claimed as improvements

were merely details in a complicated machine, the equivalents of which have been used in the same way for the last sixty years. It points to the patent to Copeland, No. 244,714, as the basic patent in a crowded art, and as disclosing the first machine for automatically performing heel seat lasting by wiping the leather of the heel and toe across the bottom of the last while tacks are inserted to hold the leather in position after it has been wiped. It traces the development of the art, since Copeland, through the patent to Lombard, No. 524,445, as one describing a mechanism for automatically adjusting the position of wipers to varying contours with means for adjusting the machine for different sizes of shoes; through the patent to Eaton, No. 596,323, which describes a machine of the class known as "bed lasters" wherein tacking is performed by hand instead of carrying the tackers on the wipers; through the patent to Pym, No. 1,368,868, another "bed lasting" machine without automatic tackers, and urges that the bed lasters do everything that the patent in suit performs and include means for a predetermined adjustment of the wipers; that the patent to Plant, No. 958,280, discloses in precise detail the means of the patent in suit for adjustably supporting the heel band, and that Brock, No. 1,188,616, demonstrates that it is old to provide means for applying pressure to the back and sides of the heel band for adjustment purposes. Principally, however, is reliance placed by the appellant upon on earlier patent to McFeely, No. 1,129,881. This is claimed to be a complete anticipation in all essential elements, in manner of their functioning, and in results. It is now expired and the appellant states the fundamental issue here to be whether the appellee may now extent its monopoly by substituting in an old construction equivalent mechanical details also old in the art and so to get a new patent for another 17 years. Its own machines, the appellant urges, do not infringe because they follow the plaintiff's own expired McFeely and Pym patents, and likewise because they are fundamentally different in construction and operation from the McFeely patent in suit.

The origin of the defendant's machines, the circumstances of their appearance in this country, and the efforts made to avoid the charge of infringement after notice, are illuminating and raise inferences in respect to infringement which may not be dispelled except upon clear and convincing evidence of fundamental differences between them and that disclosed in the second McFeely patent. The defendant purchased four "Calzera" automatic machines from Moenus Machinen-fabrik in Frankfort, Germany. It seems reasonably clear, from the general appearance of the accused machines, and as they are depicted and described in the Moenus catalog, and from the evidence of the defendant's witness Kath, a mechanical engineer engaged on patent work for the Moenus Company who came from Germany to help in the preparation of the trial and whose duty it was to study shoe machinery patents including those granted by United States, and who saw one of the McFeely machines in Germany and was familiar with the patent drawings and specifications, that the Moenus machines are copies of the commercial construction of the plaintiff. They followed this construction even in minor detail not shown in the patent, and the improved results claimed for it by the inventor over machines of the prior art are enthusiastically proclaimed in the Moenus catalog. After notice of infringement was served upon the appellant, there were removed from its machines certain wing screws, clips and a form of adjustable stop, some upon the advice of counsel and all in the hope clearly indicated that the changes might avoid a finding of infringement.

These implications do not, of course, either preclude or excuse us from detailed consideration of alleged differences between the accused devices and the disclosures and claims of the patent, or of their identity. Such consideration as we are able to give to the various elements and their function in tracing them through the maze of drawings and photographs that have been submitted to our inspection, requires a holding of infringement if the claims

be valid. The wipers and tackers of the accused structures are fixedly connected as in the patent. While the tacking in the infringing devices is through the wipers, whereas McFeely disclosed tacking at a predetermined distance beyond the edge of the wipers, his claims are without limitation in this respect and the choice is but between known expedients in the art, nevertheless it is but another indication of copying that the assailed machines follow the commercial practice of the plaintiff rather than the preferred method disclosed by the inventor. The fixed connection between wipers and tackers is, however, present. Although in the defendant's machines the wipers and tackers are bolted to carrier plates, these are within the language of claims 6 and 85 printed in the margin,[1] as "tacking units co-operating with the wiper plates and having means to maintain them in predetermined relation to the wiper plates in all positions of adjustment," and "tackers connected to the wipers for preliminary adjustment with them and for power effected movement with the wipers."

Claims 23 and 91, likewise printed in the margin,[2] are

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[1] Claims 6, 85—

6. A machine of the class described having, in combination, end lasting wiper plates for closing over a last bottom, manually operable means determinately to adjust the positions of the wiper plates to initially position the wiper plates to act on the marginal portions at the end of a shoe upper mounted on the last, means to effect bodily and swinging movement of the wiper plates to wipe said marginal portions over the bottom of the last into position to be fastened on the bottom of the last, and tacking units co-operating with the wiper plates and having means to maintain them in predetermined relation to the wiper plates in all positions of adjustment of said plates.

85. In a machine of the class described, the combination with last and shoe positioning means, of end embracing wipers, means for effecting a preliminary adjustment of the wipers to the contour of the shoe, additional power means for subsequently operating the wipers, and tackers connected to the wipers for preliminary adjustment with them and for power effected movement with the wipers subsequently over the shoe.

[2] Claims 23, 91—

23. A lasting mechanism of the class described having, in combination, a substantially U-shaped flexible clamping member to embrace one end of a last and shoe upper, means to support a last and shoe upper with one end positioned within said clamping member, a movable adjusting member connected to the lower edge of said

also infringed. Such infringement is not avoided by the removal of the wing screws and clips of the accused organization prior to suit, for here is not a case of alleged infringement, inadvertent or of unsubstantial character and long-abandoned as led to the denial of an injunction in *Lester* v. *American Rolling Mill Co.*, 95 Fed. (2d) 772 (C. C. A. 6). Likewise in general claim 42, also printed in the margin,[3] infringed. While there was sharp conflict in the testimony, the District Court found that the element "manually adjustable means for determinately varying the amount of vertical movement of the hold-down" was

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clamping member at its rear closed end, means to support the lower edges of said clamping member at opposite sides, pressure members arranged to engage the opposite sides of the U-shaped clamping member at points above its lower edges and to press said sides inwardly to force the end of the upper in close conformity to the last, manually operable means to move said adjusting member to slide the U-shaped clamping member relatively to said pressure members, means to operate said pressure members to clamp the shoe upper, and end wiping mechanism to wipe down the edges of the upper over the bottom of the last.

91. In a machine of the class described, the combination with last and shoe positioning means, of an end embracing band for clamping the upper round the lateral periphery of an end of the last, supporting means relatively to which the opposite side portions of the band are permitted to slide lengthwise of the shoe, and means connected to the end portion of the band for adjusting it lengthwise of the shoe and relatively to said supporting means.

[3] Claim 42—

42. A machine of the class described having, in combination, clamping means to embrace one end of a last and shoe, end wipers positioned to operate on the edges of the upper at said end of the shoe, a hold-down mounted for vertical movement and position to engage the bottom of the last and shoe, a support for a last and shoe constructed and arranged for manually effected movement to engage the last and shoe with said clamping means and hold-down, power operated mechanism effective to move said support forcibly to press the last and shoe against said clamping means and hold-down and to actuate the clamping means, mechanism effective in timed relation to the clamping means to depress the hold-down and support to position the shoe bottom determinately below the plane of the wipers, mechanism operative to actuate the wipers to break down the edge of the upper over the bottom of the positioned last and shoe, the said hold-down mechanism being automatically operative subsequently determinately to raise the hold-down, the said power operated mechanism being operative substantially coincidentally correspondingly to raise the said support to engage the bottom of the last and shoe with said hold-down with the shoe bottom positioned substantially in the plane of the wipers, and the end wiper mechanism being subsequently operative in timed relation to wipe over and compact the broken down edge of the upper over the bottom of the last and shoe, and manually adjustable means for determinately varying the amount of vertical movement of the hold-down.

present at the time of plaintiff's inspection, and moreover that the substitution for this element fulfilled the same function. In consideration of inferences that support the findings of the District Judge, who, having seen and heard the witnesses, has superior advantages for ascertaining the truth, we are unable to say that his finding in this respect is clearly erroneous.

But obvious as infringement of a patent may appear to be, the utilization of its disclosures pays no tribute to its validity, however much it concedes utility, for the copying of a patented thing may, in the last analysis, be but a challenge to monopoly boldly asserted by the infringer on behalf of himself and the public, and an invitation to the patentee to vindicate his patent by judicial test. Retreat, however, in the face of notice of infringement wears a different aspect, and if not precisely a concession of validity, it implies at least some doubt as to the soundness of the challenge and the faith of the challenger in the strength of his position.

The appellant urges the first McFeely patent as complete anticipation of the claims of the patent in suit. It is without doubt its most pertinent reference. But the first McFeely patent was before the patent office for consideration on the second application and there is no indication that McFeely experienced unusual difficulties in the pursuit of the patent in issue. We are, therefore, obliged to give consideration to the rule that "one otherwise an infringer who assails the validity of a patent, fair upon its face, bears a heavy burden of persuasion, and fails unless his evidence has more than a dubious preponderance. *Philippine Sugar E. D. Co.* v. *Philippine Islands,* 247 U. S. 385, 391; *Radio Corporation* v. *Radio Laboratories,* 293 U. S. 1, 8. To the presumption of validity that attaches to a granted patent, where the most pertinent prior art has been cited against it in the patent office, there must probably now be added the force of a growing recognition of finality that is generally being accorded to administrative determinations supported by evidence, on the ground that the administrative agency

is expected to have developed an expertness in its specific field beyond what may be expected from the courts wherein adjudications range the whole field of human controversies. It is true, of course, that in the most strict sense, the granting of a patent is not, except when an interference is declared, the result of an adversary proceeding, as in usual administrative determinations of agencies exercising quasi-judicial functions. Nevertheless, it wears, in the broader sense, an adversary aspect, since patent office examination protects the public against unmerited monopoly, and so the public, as represented by the examiner, is always impliedly in adversary position to the application just as it is ever a third party to an infringement suit. *Kellogg* v. *Michigan Bell Telephone Co.*, 99 Fed. (2d) 203 (C. C. A. 6). To the inferences in support of validity thus noted, must now be added the implication of correctness that attaches to the findings and conclusions of the District Judge who heard the testimony of the witnesses and saw the machines in operation.

The plaintiff contended below, and the court found, that the McFeely patent in suit was the first automatic heel seat laster which ever went into commercial use. This finding was promptly challenged by the appellent with the request that it be permitted to reopen its case and introduce the file-wrapper of the first McFeely patent, to disclose a supplementary oath of McFeely reciting that a full-sized operative machine was constructed in accordance with the detailed drawings of the patent and had been employed for lasting heel seats in the ordinary course of manufacture of many pairs of shoes; and to disclose that the affidavit was in support of statements by plaintiff's attorneys in pursuit of the application, that the applicant was the first inventor to have produced a successful heel seat lasting machine. While this evidence was rejected in the court below, as offered too late, we have given it consideration, and see no reason for remanding the case to the District Court for such bearing as it may have upon decision. McFeely was not

the first, as undoubtedly he will not be the last inventor to claim merits for his invention not capable of realization when the patent is fully exploited under competitive conditions of commercial manufacture. The statement in the file-wrapper is little more than what is required to satisfy the patent office that there has been a reduction to practice, without which there is but an unpatentable concept, and while the court's finding in respect to the pioneer character of the second McFeely invention may be somewhat of an over-statement, yet, in the light of the uneventful story of the first McFeely invention, it is substantially accurate.

The first McFeely patent contributed little to the art. But one machine was ever built in accordance with its disclosures and this was sent by the appellee to the Victor Shoe Company for test in the lasting of heel seats under commercial conditions, subject to an arrangement by which no charge should be made to the Victor Company for the work done on the machine, and that any shoes spoiled in its operation should be paid for by the appellee. Although the machine successfully lasted shoes of specific sizes, it proved incapable of operating satisfactorily upon a range of sizes large enough to adapt it for commercial operation in the ordinary shoe factory, and after it had been tested for a period it was returned to the manufacturer, was dismantled, and no other similar machine was ever built. On the other hand, the automatic heel lasters of the patent in suit have gone into wide use, the court finding that more than 1200 of such machines had been in operation throughout the world, and both litigants agree that they are complicated and expensive. Between commercial success demonstrated by brief use of a single machine abandoned and not duplicated, and commercial success of the machine of the second patent, there yawns a wide gulf not to be bridged merely by insistence that the second McFeely patent advanced the art but in minor and inconsequential details.

The challenge to the validity of the patent in suit on the ground that it discloses but an aggregation within

the principles applied in such cases as *Grinnell* v. *Johnson Co.*, 247 U. S. 426 (the washing machine and wringer), or *Detroit Stoker Co.* v. *Brownell,* 89 Fed. (2d) 422 (C. C. A. 6) (the stoker and blower), is not persuasive. It is true that many of the features of the claims are old and that an organization, including wipers and tackers, was shown in somewhat primitive form in Copeland. It is also true that adjustability of elements, thought not in the form shown in the first McFeely patent, is added by the patent in suit to the McFeely type laster, and that mere adjustability by common mechanical expedients may not, of itself, denote the presence of the quality of invention and merit the issue of a patent. But to reduce the second McFeely patent to a mere aggregation of tacker and the old form of bed laster, or to consider it as merely the combination of the first McFeely patent and conventional expedients for adjustment, is to ignore matters of substance.

The patent in suit, unlike its predecessor, provides not only for a preliminary adjustment of the wipers but for the maintenance of the tackers in relation thereto. The tacking occurs before the final withdrawal of the wipers, eliminating the tendency to pull the material to be tacked from its wiped position. The heel band of the first McFeely machine was loose and without support and incapable of sliding movement. Upon the withdrawal of the shoe the heel band was ejected as the result of the release of spring tension upon a plurality of cords. There was absent in the prior McFeely machine, means for adjusting the vertical movement of the hold-down that are present in the patent in suit. Taken together, the improvements in the second McFeely machine gave a new result and a new unitary mode of operation of the entire machine. There is here much more than mere improvement in quality or quantity of product due to the independent functioning of an improved element, as in *Bassick* v. *Hollingshead,* 298 U. S. 415, or *Kodel Elec. Co.* v. *Warren Clock Co.*, 62 Fed. (2d) 692 (C. C. A. 6).

The patent in suit is not merely the aggregate of laster and tacker, and the disclosed improvements upon

prior art are not limited to the addition of adjustability. We pointed out in *Detroit Stoker Co.* v. *Brownell*, supra, that while addition of adjustability alone to a machine or an element thereof which entails no exercise of the inventive faculty will not rise to the dignity of invention, there are patents wherein provisions for adjustability are not only novel but disclose the highest type of inventive thought and solve problems which long defied workers in the art. The respective history of the two McFeely machines place the patent in suit in the second of the categories discussed in the *Stoker* case. It is not to be struck down by the familiar expedient of picking out old elements of the prior art and speculatively combining them when in practice they have never been combined, though the need for a machine of the type disclosed had long been recognized. The claims of McFeely in suit are valid and infringed.

It may be of little importance in this controversy to adjudicate the validity of the Hoyt patent after upholding validity and infringement of the claims of McFeely, since the four machines of the appellant are accused of infringing both, and it is not probable that royalties would be cumulated. However, recent experience, *Cleveland Trust Co.* v. *Schriber-Schroth Co.*, 108 Fed. (2d) 109 (C. C. A. 6), dictates it to be the more prudent to adjudicate all issues submitted to us.

Hoyt concerns itself specifically with improvements in means for adjustment of the heel band in machines of the McFeely type. Claims 19 and 21, printed in the margin,[4]

[4] Claims 19, 21.

19. In a machine of the class described, the combination of fastening inserting means, means for positioning a shoe in relation to the fastening inserting means comprising a substantially U-shaped flexible band operable to clamp the heel end of the shoe, an operating member and unyielding connections between said member and the band for forcing the ends of the band against the shoe, and separate yielding means operating on each side of the band adjacent to the bight of the band to press such portions of the band against the shoe.

21. In a machine of the class described, the combination of fastening inserting means, means for positioning a shoe in relation to the fastening inserting means comprising a substantially U-shaped flexible band operable to clamp the heel end of the shoe, means for supporting the band, devices comprising arms loosely mounted on the supporting means, and means normally operative to press said devices against the band.

are in suit and cover subject matter corresponding to that which is included in claims 23 and 91 of McFeely. The pressure plates of McFeely, operating upon the heel band, are capable of yielding by reason of opposed springs. These Hoyt has omitted. Whereas McFeely employed a unitary spring at the bight end of the band, Hoyt uses separate arms loosely mounted, carrying pressure members rendered yieldable by springs. Yieldability is thus transposed from the bight ends of the band to its center. This simple reorganization of the heel band mechanism may afford greater adjustability or flexibility of the member, but it requires no reorganization of the machine nor any new mode of operation, and whatever improvement may result is due entirely to the improved element and cannot give rise to valid claims embracing the entire lasting mechanism. The principle sought to be applied by the appellant to McFeely, and by us in respect to it, rejected, is clearly applicable to Hoyt under the rule of *Bassick* v. *Hollingshead,* supra; *Lincoln* v. *Stewart-Warner Corp.,* 303 U. S. 545, 549; *General Motors Corp.* v. *Rubsam,* 65 Fed. (2d) 217, 220 (C. C. A. 6); *Detroit Stoker Co.* v. *Brownell,* supra. The Hoyt claims in suit are invalid.

The decree below will be amended to strike therefrom the adjudication as valid and infringed claims 19 and 21 of Hoyt, and directing as to them that the bill be dismissed. So amended the decree below is affirmed.

Judge Hamilton dissents.

UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SIXTH CIRCUIT

I, J. W. MENZIES, Clerk of the United States Circuit Court of Appeals for the Sixth Circuit, do hereby certify that the foregoing is a true and correct copy of record and proceedings in the case of *The Williams Manufacturing Company* v. *United Shoe Machinery Corporation*, No. 8438, as the same remains upon the files and records of said United States Circuit Court of Appeals for the Sixth Circuit, and of the whole thereof.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the seal of said Court at the City of Cincinnati, Ohio, this 17th day of July, A. D. 1941.

J. W. MENZIES,
Clerk of the United States Circuit
(SEAL) *Court of Appeals for the Sixth Circuit.*